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09:58:46 VIRGINIA:

IN THE CIRCUIT COURT FOR THE CITY OF RICHMOND
JOHN MARSHALL COURTS BUILDING-----x
PHILIP MORRIS COMPANIES, INC., et al.,Plaintiffs, At Law No.
-against- 760CL94X
00816-00AMERICAN BROADCASTING COMPANIES,
INC., et al.,

Defendants.

-----x
June 30, 1995
10:04 a.m.

HIGHLY CONFIDENTIAL - TRADE SECRET

Continued Videotaped Deposition of DAVID
ERNEST MERRILL, taken by Defendants, pursuant to
Subpoena, at the offices of McGuire Woods Battle
& Boothe, Esqs., 901 East Carey Street, Richmond,
Virginia before Lee A. Bursten, a Registered
Professional Reporter and Notary Public within
and for the Commonwealth of Virginia.MANHATTAN
REPORTING CORP 132 NASSAU STREET • NEW YORK, N.Y. 10038 • (212) 267-2228

2058459478

1 Merrill - Highly Confidential - Trade Secret

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24 RICHARD HARTDEGREE

25

2058459479

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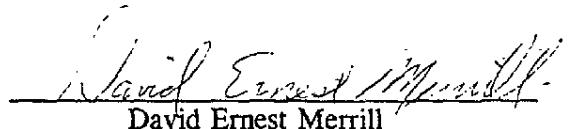
ERRATA SHEET

Corrections or changes to the deposition testimony of:

DAVID ERNEST MERRILL - Volume 2

Page	Line	Correction
195	10	From "and" to "to"
199	19	Before "What" add "That's fine."
200	16	Change "if I went" to "whether I went"
200	16	From "if" to "whether"
209	18	Change "Q." to "A."
209	20	Change "A." to "Q."
220	22	From "precede" to "preceded"
224	11-12	From "it refers to there's" to "one is referring to it as"
227	4	Add "obtained" after "nicotine"
227	4	After "nicotine" add "obtained"
231	17	Change "this" to "there"
232	14	After "That's right." add "That's right. That's right."
232	14	After "That's right. That's right. That's right." add "WITNESS: That's what I thought." [?] _o
232	14	From "That's --" to "That's right."
232	14	From "that was" to "That was"
232	16-17	Delete "on a" [?] _o
232	18	Change "that's my answer." to "I was answering your question."
232	18-19	From "That's my answer. On a regular basis." to "I was answering your question. On a regular basis, they're never done."
232	19	Add "they're never done" after "basis."
238	23	Before "entitled" add "It's"
238	23	Change "456789" to "45"
238	23	From "456789," to "45."
240	14	Change "I left" to "I'd left"
241	6	Place quotation marks around "Weigan evaporator run on RLBTW."

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David Ernest Merrill

ERRATA SHEET

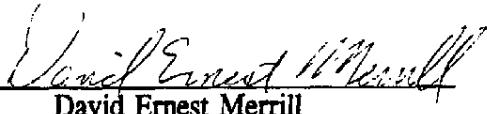
2

Corrections or changes to the deposition testimony of:

David Ernest Merrill - Volume 2

Page	Line	Correction
241	6	After "the" add "document."
241	8	From "this" to "that"
243	5	Insert "that" between "years" and "I"
247	19	Change "I understand" to "what you mean by"
248	4	Insert "soluble" between "remaining" and "---
250	10	Omit "Yes,"
251	12	Change "fertilizing" to "fertilizer"
251	12	From "fertilizing" to "fertilizer"
259	23	After "incoming" delete "new"
259	23	After "with" add "new"
259	23	Insert "new" between "with" and "batches"
264	7	Before "to" add "I'd like"
270	22	Change "raw" to "dry"
272	8	From "Whom" to "Where" ⁷ ₆
272	8	From "MR. KILLORY:" to "MR. NUNLEY:"
272	8	Omit "MR. KILLORY:"
272	10	After "answer" add "was that "I have --""
282	5	From "Variation was" to "Variations of up to"
285	11	Change "They" to "it"
290	22	Change "1983" to "1993"
291	6	From "Take" to "Could you take"
291	13	After "stationery" add "on which it's printed"
291	14	Change "1983" to "1993"
291	23	After "to" add "training and"
291	23	Change "things like" to "training and"
291	23	Delete "things like"

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 David Ernest Merrill

ERRATA SHEET

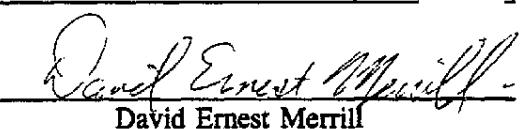
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Corrections or changes to the deposition testimony of:

David Ernest Merrill - Volume 2

<u>Page</u>	<u>Line</u>	<u>Correction</u>
292	16	Add "I think." after "questions."
293	6	Change "regs" to "regulations"
293	25	From "next" to "second"
297	3	Change "flue" to "through"
298	2	Change "CL" to "it"
304	6	Change "type" to "tight"
309	22	Before "I" add "Takasago --"
314	13	Change "fine" to "fibers"
320	4	From "T. Estes" to "B. Estes"
322	12	Omit "It means"
322	13	From "measure" to "pressure"
325	12	From "in" to "to".
325	12	Change "in" to "to"
328	3	Omit "the"
328	12	Delete "of"
328	12	From "looking at" to "reading from"
329	19	Insert "82" between "127981," and "production"
329	19	After "127981" add "to 82"
330	2	After "any" add "other"
332	8	Change "your" to "our"
332	8	From "your" to "our"
332	11	Change "as part" to "has part"
334	15	Add "Let me" before "be clear."
337	18	After "and" add "all the"
337	18	Insert "all the" between "and" and "other"
344	10	From "in" to "based on"

2058459481


 A handwritten signature in black ink, appearing to read "David Ernest Merrill".

David Ernest Merrill

ERRATA SHEET

4

Corrections or changes to the deposition testimony of:

David Ernest Merrill - Volume 2

<u>Page</u>	<u>Line</u>	<u>Correction</u>
346	4	From "that that" to "that"
346	9	Change "have it at" to "have at"
347	12	Change "several" to "the same"
359	11	Change "where we are" to "were we"
374	24	From "those" to "most"
375	6	After "a" add "tape"
376	12	Change "certain" to "several"
376	12	From "certain" to "several"
378	18	From "seconds" to "sentences"
382	25	From "subsequent" to "substantive"

2058459482


David Ernest Merrill
David Ernest Merrill

1 Merrill - Highly Confidential - Trade Secret

2 ..403:56 2 THE VIDEO OPERATOR: This is
3 10:04:00 3 videotape number 4. Today is June 30th, 1995.
4 10:04:04 4 This is the continuation of the deposition of
5 10:04:06 5 Mr. Merrill. The time on the screen is
6 10:04:10 6 10:04:07. You're on the record.

7 D A V I D E R N E S T M E R R I L L,
8 resumed, having been previously duly sworn, was
9 examined and testified further as follows:

10 CONTINUED EXAMINATION

11 BY MR. KILLORY:

12 Q. Mr. Merrill, you understand you're
13 still under the same oath you took yesterday;
14 correct?

15 A. Yes, I do.

16 Q. Is there anything in your testimony
17 yesterday that you've thought about overnight and
18 want to correct or change?

19 A. No.

20 Q. Yesterday we had some discussion
21 about the FDA tour that you and Mr. Burnley
22 conducted on March 22nd and 23rd, 1994. Do you
23 recall that discussion?

24 A. Yes.

25 Q. Taking me through the sequence of the

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:04:48 2 tour, we left off at a session in the conference
10:04:52 3 room of the operations center on the morning of
10:04:54 4 the 22nd, and you gave me a description of what
10:04:56 5 went on there, an overview of things.

10:05:00 6 Could you tell me what happened next
10:05:02 7 after that session in the conference room on the
10:05:02 8 morning of the 22nd?

10:05:10 9 A. Well, they asked us to leave the room
10:05:16 10 ^{to} and talk for a little while. When they asked us
10:05:18 11 back in the room they wanted to break up into
10:05:22 12 about six groups, but there weren't but two of
1^ 05:28 13 us, so we broke up into two groups. One group
10:05:30 14 went with Harold and one group went with me.

10:05:34 15 Q. What was their request for the six
10:05:36 16 groups, to do what?

10:05:44 17 A. The only thing that I can recall is,
10:05:48 18 other than the tours that we took them on, was
10:05:54 19 they wanted to interview some of the people in
10:05:56 20 the different areas.

10:05:58 21 Q. And what different areas?

10:06:02 22 A. I don't remember if they specifically
10:06:10 23 said these areas. As I recall, they basically
10:06:12 24 wanted to have one group learning the process and
10:06:16 25 one group just doing straight interviews.

2058459484

MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:06:22 2 Q. Interviews of people from different
10:06:24 3 parts of the cigarette manufacturing process?

10:06:28 4 A. Different parts of the whole
10:06:30 5 operation.

10:06:32 6 Q. Did they identify particular
10:06:34 7 individuals they wanted to speak with?

10:06:36 8 A. Not that I recall, no.

10:06:40 9 Q. Did they conduct interviews?

10:06:42 10 A. The group that was with me had an
10:06:46 11 opportunity to interview several of the employees
10:06:48 12 on the tours.

1 06:52 13 Q. From the conference room you took
10:06:54 14 half of the group and Mr. Burnley went with the
10:06:56 15 other half of the group; is that correct?

10:06:58 16 A. That's correct.

10:07:00 17 Q. And where did you go with the group?
10:07:02 18 What happened next with the group that you were
10:07:02 19 accompanying?

10:07:08 20 A. I don't remember the exact sequence,
10:07:10 21 but we went to the blended leaf plant, the
10:07:16 22 reconstituted leaf plant, and the primary
10:07:22 23 processing part of the manufacturing center.

10:07:26 24 Q. Did the FDA people request tours of
10:07:28 25 those facilities, or was it your decision to take

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:07:32 2 them to those facilities?

10:07:34 3 MR. NUNLEY: Objection as to form.

10:07:34 4 A. I don't recall.

10:07:42 5 Q. Did they -- I asked earlier whether
10:07:44 6 they requested interviews for particular people.

10:07:46 7 Did they request interviews for people holding
10:07:48 8 particular positions at Philip Morris?

10:07:50 9 A. I don't really recall.

10:07:54 10 Q. The first tour was of the BL
10:07:56 11 facility; is that correct?

10:08:00 12 A. No, as I said a minute ago, I don't
10:08:02 13 recall the exact order, but we did cover those
10:08:04 14 three particular facilities.

10:08:10 15 Q. At the BL facility.

10:08:14 16 A. Let me back up and correct myself. I
10:08:18 17 only took them to the blended leaf plant and the
10:08:20 18 reconstituted leaf plant.

10:08:20 19 Q. Did someone else take them to the
10:08:22 20 primary processing facility?

10:08:24 21 A. Harold took them to primary
10:08:26 22 processing, the other half of the group.

10:08:30 23 Q. While you were taking your half of
10:08:32 24 the group to the BL and the RL facilities, do you
10:08:36 25 know where the other half was with Mr. Burnley?

2058459486

MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:08:40 2 A. I know they went to primary
10:08:42 3 processing. I'm not sure where they went from
10:08:44 4 there.

10:08:48 5 Q. At the BL plant, what happened?

10:08:50 6 MR. NUNLEY: Objection as to form.

10:09:00 7 A. Well, we took them on a tour of the
10:09:00 8 facility.

10:09:02 9 Q. In the course of that tour did they
10:09:04 10 ask questions about the BL process?

10:09:06 11 A. Yes, they did.

10:09:08 12 Q. Do you recall what questions they
10:09:10 13 asked about BL?

10:09:10 14 A. Not specifically, no.

10:09:12 15 Q. Do you have a general recollection of
10:09:14 16 the questions at the BL facility?

10:09:18 17 A. They would ask questions like what do
10:09:22 18 you do here, what do you do there, what's this,
10:09:22 19 what's that.

10:09:26 20 Q. And did you conduct the tour?

10:09:26 21 A. Yes, I did.

10:09:28 22 Q. Did anyone assist you from Philip
10:09:30 23 Morris in conducting the tour?

10:09:34 24 A. I believe so, but I'm not sure.

10:09:36 25 Q. Do you know which individuals?

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1 Merrill - Highly Confidential - Trade Secret

10:09:40 2 A. Not specifically, no.

10:09:44 3 Q. You mentioned that they did do some interviewing. Did they do any interviewing in
10:09:48 4 the course of the BL tour beyond the questions
10:09:50 5 they asked of you?

10:09:52 6 MR. NUNLEY: Objection as to form. I
10:09:54 7 think the use of the term "interview" is vague.
10:09:56 8 I think it ought to be defined for the record.

10:09:58 9 MR. KILLORY: I believe it's a term
10:10:00 10 the witness used in his earlier response.

10:10:00 11 Q. What did you mean --

10:10:02 12 MR. NUNLEY: Excuse me. I don't know
10:10:04 13 whether the witness and you are on the same
10:10:08 14 wavelength as to what the word "interview"
10:10:10 15 means. I want the record to be clear. I suggest
10:10:20 16 you ask the witness what he means by the term
10:10:20 17 "interview."

10:10:20 18 Q. *That's fine*
10:10:20 19 What did you mean when you referred
10:10:20 20 to interviews that the FDA people had with Philip
10:10:22 21 Morris employees?

10:10:22 22 A. They actually asked questions of
10:10:22 23 them.

10:10:26 24 Q. That's my understanding as well. Of
10:10:34 25 which individuals did they ask questions?

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1 Merrill - Highly Confidential - Trade Secret

10:10:48 2 A. I don't remember specifically at the
10:10:50 3 BL plant.

10:10:50 4 Q. You don't remember any of the people
10:10:52 5 that they asked questions of?

10:10:54 6 A. I'm trying to remember who was there
10:11:00 7 with us. And I'm just not sure.

10:11:06 8 Q. Was the next step in the process the
10:11:08 9 tour of the RL facility? Is that correct?

10:11:10 10 A. Yes.

10:11:12 11 MR. NUNLEY: Next step in which
10:11:12 12 process?

10:11:14 13 MR. KILLORY: Process of conducting
10:11:14 14 the FDA tour.

10:11:16 15 A. Yes. As I said earlier, I don't know *whether*
10:11:18 16 ~~if~~ I went to the RL plant first or the BL plant.

10:11:20 17 Q. At the RL plant, did you also conduct
10:11:24 18 a tour of the physical plant, the facility?

10:11:26 19 A. Yes, I did.

10:11:28 20 Q. Were there any parts of the facility
10:11:30 21 that they specifically, the FDA people
10:11:32 22 specifically requested to see?

10:11:36 23 A. Not that I recall, no.

10:11:40 24 Q. Do you recall what questions they
10:11:42 25 asked at the RL facility?

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:11:48 2 A. Again, they asked questions similar
10:11:52 3 to the ones that they asked at the BL plant.
10:11:54 4 What do you do here, what goes on there.

10:11:56 5 Q. Nuts and bolts type questions about
10:11:58 6 how the operation worked?

10:12:00 7 MR. NUNLEY: Objection as to form.

10:12:02 8 A. Basically they were trying to
10:12:04 9 understand what we were doing.

10:12:08 10 Q. At the RL plant, did they interview
10:12:10 11 any individuals other than yourself?

10:12:14 12 A. One I can remember.

10:12:14 13 Q. Who was that?

10:12:20 14 A. Mickey Annamanthadoo.

10:12:22 15 Q. And what was the subject matter of
10:12:24 16 that interview?

10:12:28 17 A. They were asking Mickey about the
10:12:32 18 additives to the liquid tobacco.

10:12:44 19 Q. Specifically which additives did they
10:12:44 20 ask about?

10:12:46 21 A. As I recall, all of them.

10:12:52 22 Q. And by "additives," what do you
10:12:52 23 mean?

10:13:00 24 A. Flavorings, humectants and other
10:13:02 25 materials added to the liquid tobacco before it's

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:13:04 2 applied back to the base web.

10:13:14 3 Q. Do you have any recollection any more
10:13:16 4 specifically what their questions were with
10:13:16 5 regard to additives?

10:13:26 6 A. They asked if any of them contain
10:13:28 7 nicotine.

10:13:32 8 Q. And did Mr. Annamanthadoo respond?

10:13:34 9 A. Yes, he did.

10:13:36 10 Q. What was his response?

10:13:42 11 A. I don't know what his exact response
10:13:42 12 was.

10:13:44 13 Q. In substance, what was his response?

10:13:50 14 A. In substance I believe his answer was
10:13:52 15 no. He did not know.

10:13:56 16 Q. His answer was no, or he did not
10:13:58 17 know?

10:14:00 18 A. No, he did not know. That was his
10:14:04 19 answer to the FDA.

10:14:08 20 Q. Did you participate in the discussion
10:14:10 21 about additives with the FDA people?

10:14:14 22 A. No, I did not.

10:14:16 23 Q. Did anyone else at the RL facility
10:14:20 24 participate in discussions about additives, the
1 14:20 25 FDA people?

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:14:26 2 A. Not that I recall, no.

10:14:28 3 Q. To the best of your recollection, no
10:14:30 4 one at that time provided an answer to the
10:14:32 5 question about whether the additives contain
10:14:34 6 nicotine or not?

10:14:38 7 A. The additives at Park 500?

10:14:40 8 Q. That's right.

10:14:40 9 A. No.

10:14:42 10 Q. I believe you testified yesterday
10:14:46 11 that subsequent to the tour, you've had no
10:14:48 12 contact with anyone at the FDA; is that correct?

10:14:50 13 A. That's correct.

10:14:52 14 Q. Do you know whether subsequent to
10:14:56 15 that conversation at the RL facility regarding
10:14:58 16 the additives added in the RL process, whether
10:15:02 17 anyone from Philip Morris answered the question
10:15:04 18 regarding whether nicotine was in the additives
10:15:06 19 added at the RL facility?

10:15:08 20 A. Yes.

10:15:10 21 Q. When was that?

10:15:18 22 A. Wednesday the 23rd of March, 1994.

10:15:20 23 Q. And who provided that answer?

10:15:26 24 A. That answer was provided by David
1 15:26 25 Williams.

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1 Merrill - Highly Confidential - Trade Secret
L
10:15:30 2 Q. Who is David Williams?
10:15:36 3 A. David Williams works in research and
10:15:36 4 development.
10:15:42 5 Q. Had you contacted him following the
10:15:44 6 discussion on the 22nd?
10:15:48 7 A. No, I did not.
10:15:48 8 Q. Do you know if someone else did
10:15:54 9 contact Mr. Williams with regard to the subject
10:15:56 10 matter of the additives?
10:15:58 11 A. I'm not sure I understand. Someone
10:16:02 12 at Park 500 or someone in general?
J 16:06 13 Q. Someone from Philip Morris, following
10:16:08 14 up on the discussion that you had with the FDA,
10:16:12 15 did someone contact Mr. Williams, someone from
10:16:14 16 Philip Morris contact Mr. Williams?
10:16:16 17 A. I believe so, yes.
10:16:18 18 Q. Who would that have been, do you
10:16:18 19 know?
10:16:18 20 A. No, I do not.
10:16:22 21 Q. I'm just trying to determine the
10:16:26 22 chain, from questions asked by the FDA of you and
10:16:32 23 of Mr. Annamanthadoo that were answered the next
10:16:34 24 day by Mr. Williams, how it came to be that
1^ 16:36 25 Mr. Williams was asked to give those answers.

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MANHATTAN REPORTING CORP.

1 1 Merrill - Highly Confidential - Trade Secret
L 10:16:38 2 Do you know how it was that
10:16:42 3 Mr. Williams was told the FDA had been asking
10:16:42 4 questions?
10:16:44 5 MR. NUNLEY: Asked and answered. He
10:16:46 6 said he didn't know.
10:16:48 7 Q. Is that your testimony?
10:16:48 8 A. Yes, sir.
10:16:50 9 Q. Did you have any conversations with
10:16:54 10 anyone after the conversation with the FDA people
10:16:56 11 at the RL plant on the subject of additives in
10:16:58 12 the RL process?
10:17:02 13 A. Could you just read that back?
10:17:04 14 Q. Sure. Did you have any conversations
10:17:08 15 with anyone after the conversations you had with
10:17:12 16 the FDA people at the RL plant on the subject of
10:17:12 17 additives in the RL process?
10:17:18 18 MR. NUNLEY: Objection as to form.
10:17:22 19 Do you mean for the follow-up meeting on the 23rd
10:17:24 20 with the FDA?
10:17:24 21 MR. KILLORY: No, I mean at any time.
10:17:26 22 MR. NUNLEY: Objection to the extent
10:17:28 23 you're asking beyond March 24, '94.
10:17:50 24 A. Prior to the 24th, I don't recall.
10:17:52 25 Q. On the 24th?

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:17:54 2 A. Or the 24th itself, I don't recall.

10:17:56 3 Q. So you don't recall any discussion

10:18:00 4 that you had on the subject of additives with the

10:18:04 5 FDA people or the people at Philip Morris in the

10:18:06 6 23rd through the 24th time frame other than the

10:18:10 7 conversation at the RL plant to which you've

10:18:10 8 already testified?

10:18:12 9 MR. NUNLEY: Objection as to form.

10:18:12 10 A. That's correct.

10:18:22 11 Q. Besides David Williams -- I'm sorry,

10:18:28 12 besides Mickey Annamanthadoo, did the FDA people

18:30 13 speak with any other Philip Morris employee at

10:18:32 14 the RL facility during that tour on the 22nd?

10:18:40 15 A. Not that I can recall, no.

10:18:46 16 Q. How long was the tour of the RL

10:18:50 17 facility with the FDA people?

10:18:56 18 A. I don't know specifically.

10:18:58 19 Q. Generally.

10:19:02 20 A. Generally I think it was probably on

10:19:04 21 the order of about 90 minutes.

10:19:06 22 Q. And how about the BL facility tour?

10:19:08 23 How long did that last, approximately?

10:19:12 24 A. That was probably on the order of 60

19:14 25 minutes.

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:19:18 2 Q. Did anything else happen on the 22nd
10:19:22 3 in connection with the FDA tour beyond the
10:19:24 4 session in the conference room that you've
10:19:26 5 testified to in the morning, the BL tour and the
10:19:28 6 RL tour?

10:19:32 7 MR. NUNLEY: Objection as to form.

10:19:40 8 A. I believe that's it. I don't
10:19:42 9 remember any more than that.

10:19:44 10 Q. Do you remember approximately at what
10:19:46 11 time the FDA tour on the 22nd concluded?

10:19:54 12 A. No, I don't.

10:19:58 13 Q. Did you have any discussions with any
10:20:04 14 Philip Morris employees regarding the FDA tour on
10:20:10 15 the 22nd of March, other than the conversation
10:20:12 16 involving Mr. Annamanthadoo and obviously with
10:20:12 17 Mr. Burnley?

10:20:16 18 A. Yes, I did.

10:20:18 19 Q. With whom did you have such
10:20:18 20 discussions?

10:20:24 21 A. Dr. Ken Houghton and legal counsel.

10:20:26 22 Q. Was the conversation with
10:20:32 23 Mr. Houghton at the same time as the legal
10:20:34 24 counsel or was that a separate conversation?

10:20:36 25 A. Same conversation.

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
Tu:20:44 2 Q. Which lawyers, do you know?
10:20:46 3 A. Don't remember their names.
10:20:56 4 Q. Apart from the conversation in which
10:21:04 5 the -- what was the subject matter, let's limit
10:21:06 6 it just to the subject matter of the conversation
10:21:08 7 you had with Mr. Houghton and the lawyer.
10:21:08 8 MR. NUNLEY: You can answer in very,
10:21:16 9 very general terms. If it's about the FDA
10:21:16 10 investigation, that's sufficient.
10:21:16 11 A. It was about the FDA investigation.
10:21:22 12 Q. Any other conversations that you had
10:21:26 13 regarding the FDA tour other than that
10:21:28 14 conversation with Mr. Houghton and company
10:21:30 15 counsel on the 22nd?
10:21:36 16 A. Not that I recall, no.
10:21:42 17 Q. The FDA tour continued on the 23rd of
10:21:44 18 March; is that correct?
10:21:46 19 A. That's correct.
10:21:50 20 Q. When did it recommence?
10:21:52 21 MR. NUNLEY: You mean at what time on
10:21:52 22 March 23rd?
10:21:54 23 MR. KILLORY: That's right.
10:21:58 24 A. I believe the tour started on -- at
10:22:00 25 10:00 on the 23rd.

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

4:22:02 2 Q. And what happened at that time?

10:22:18 3 A. The FDA was toured through the --
10:22:20 4 toured through the smoking lab.

10:22:22 5 Q. What is the smoking lab?

10:22:28 6 A. The smoking lab is where the FTC
10:22:30 7 cigarette machines are located.

10:22:40 8 Q. Who accompanied -- how many FDA
10:22:42 9 representatives? The entire group went on the
10:22:44 10 tour of the smoking lab?

10:22:46 11 A. I did not go with them so I don't
10:22:46 12 know.

10:22:52 13 Q. You did not participate in the tour
10:22:54 14 of the smoking lab?

10:22:54 15 A. That's correct.

10:22:58 16 Q. What was your next contact with the
10:22:58 17 FDA personnel?

10:23:12 18 Q. *A* Sometime I think early afternoon on
10:23:14 19 the 23rd.

10:23:20 20 Q. *A* And what happened at that time in the
10:23:24 21 early afternoon of the 23rd when you met up again
10:23:24 22 with the FDA personnel?

10:23:36 23 A. Dr. Whidby and Dr. Heretick explained
10:23:42 24 cigarette construction to the FDA. And David
10:23:46 25 Williams showed the two chemists that accompanied

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:23:52 2 the FDA the constituents of the flavors.

10:23:56 3 Q. When you say Mr. Williams showed them
10:24:04 4 the constituents of the two flavors, did he make
10:24:06 5 a presentation in some written form?

10:24:12 6 A. Based on agreements with the --
10:24:14 7 contractual agreements, David was able to show
10:24:18 8 them the constituents, but not who they came from
10:24:24 9 nor the quantity that was in the material. Just
10:24:26 10 what constituted the material itself.

10:24:30 11 Q. When we're referring to the flavors,
10:24:32 12 are these the flavor additives in the RL process
10:24:36 13 that Mr. Williams was discussing?

10:24:42 14 A. I honestly don't know which items
10:24:46 15 David showed the two lady chemists.

10:24:50 16 Q. In an earlier question I think I
10:24:52 17 misspoke and I said "two flavors." I meant to
10:24:54 18 say "the flavors." Do you recall how many
10:24:56 19 flavors were being discussed with the FDA
10:24:58 20 personnel by Mr. Williams?

10:25:02 21 A. No, I don't.

10:25:10 22 Q. What was Mr. Williams's answer to the
10:25:12 23 FDA's question regarding whether there was
10:25:14 24 nicotine in any of the additives?

10:25:22 25 MR. NUNLEY: Objection as to form. I

MANHATTAN REPORTING CORP.

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1 Merrill - Highly Confidential - Trade Secret

10:25:28 2 think you're confusing the terms "additives" and
10:25:28 3 "flavors."

10:25:30 4 A. I'm not sure exactly.

10:25:32 5 Q. You had earlier said in your earlier
10:25:34 6 testimony that the question had been phrased in
10:25:38 7 terms of additives by the FDA; is that correct?

10:25:40 8 A. Additives at Park 500, that's
10:25:40 9 correct.

10:25:42 10 Q. And did Mr. Williams answer that
10:25:46 11 question regarding whether there was nicotine in
10:25:50 12 the additives at Park 500?

10:25:50 13 A. I have no idea.

10:25:54 14 Q. So you did not hear Mr. Williams --
10:25:56 15 you don't know whether he answered that
10:25:56 16 question?

10:26:08 17 A. There was not any discussion. Two
10:26:12 18 chemists from the FDA looked at the sheets.

10:26:14 19 Which sheets they looked at, I don't know.

10:26:16 20 Q. Did you ever see those sheets?

10:26:18 21 A. No, I did not.

10:26:20 22 Q. I had thought, and I may be wrong, I
10:26:22 23 had thought in your earlier testimony you had
10:26:22 24 said that the question about nicotine in
10:26:26 25 additives added at Park 500 was posed by the FDA

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1 Merrill - Highly Confidential - Trade Secret
10:26:30 2 during the RL tour and that it was subsequently
10:26:36 3 answered by David Williams on the 23rd. That is
10:26:38 4 not correct; is that right?

10:26:46 5 A. Yes, that's probably not correct. I
10:26:48 6 don't know what Dave specifically showed them at
10:26:50 7 that meeting in that afternoon.

10:26:52 8 Q. Did you have any conversation with
10:26:56 9 Mr. Williams on that day regarding his
10:26:58 10 discussions with the FDA chemists?

10:26:58 11 A. No.

10:27:06 12 Q. Sitting here today do you know
10:27:08 13 whether Mr. Williams answered the question
10:27:10 14 regarding whether nicotine was in the additives
10:27:14 15 at Park 500 to the FDA personnel?

10:27:24 16 A. I'm not really sure how to answer
10:27:24 17 that question.

10:27:28 18 Q. Do you know whether Mr. Williams
10:27:32 19 answered the question regarding nicotine posed by
10:27:34 20 the FDA personnel with regard to the Park 500
10:27:36 21 additives?

10:27:38 22 A. No, I don't.

10:27:50 23 Q. So you met up with the FDA personnel
10:27:52 24 following the tour of the smoking lab. Were
10:27:54 25 there any other intervening events of which you

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1 Merrill - Highly Confidential - Trade Secret
10:27:58 2 are aware before you met up with the FDA
10:28:00 3 personnel in the afternoon of the 23rd?

10:28:06 4 A. I don't know if there were or not.

10:28:08 5 Q. You don't know whether they toured
10:28:12 6 any other facilities besides the smoking lab on
10:28:12 7 the 23rd?

10:28:12 8 A. No.

10:28:16 9 Q. Was Mr. Burnley with them on the tour
10:28:16 10 of the smoking lab?

10:28:18 11 A. I don't know who was with them on the
10:28:20 12 tour of the smoking lab.

10:28:22 13 Q. When you met up with them again, when
10:28:26 14 you met up with the FDA personnel again on the
10:28:28 15 afternoon of the 23rd, what happened at that
10:28:28 16 time?

10:28:38 17 A. We had Dr. Whidby and Dr. Heretick
10:28:40 18 there to explain cigarette construction, and
10:28:46 19 again, David Williams to go over the flavors.

10:28:46 20 Q. Anything else happen at that
10:28:46 21 session?

10:28:58 22 A. What do you mean by "anything else"?

10:29:00 23 Q. Any questions that you can recall
10:29:04 24 that were posed by the FDA besides in the context
10:29:08 25 of discussions with Dr. Whidby, Dr. Heretick and

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1 Merrill - Highly Confidential - Trade Secret

10:29:08 2 David Williams.

10:29:12 3 A. I can't remember any outstanding
10:29:16 4 questions that they asked at the meeting.

10:29:18 5 Q. Or the subject matter of any of their
10:29:20 6 questions.

10:29:28 7 A. No.

10:29:34 8 Q. After that session, were there any
10:29:40 9 other events on the tour? Did you take the FDA
10:29:42 10 people to any other facilities on the afternoon
10:29:44 11 of the 23rd? -

10:29:44 12 MR. NUNLEY: Objection. Compound
10:29:46 13 question.

10:29:52 14 A. After we finished with the meeting in
10:29:56 15 the conference room the afternoon of the 23rd,
10:29:58 16 the FDA left.

10:30:00 17 Q. Did you have any discussions at that
10:30:04 18 time with anyone from Philip Morris about that
10:30:04 19 day of the FDA tour?

10:30:06 20 A. Yes.

10:30:08 21 Q. With whom did you have such
10:30:08 22 discussions?

10:30:12 23 A. Dr. Houghton. And our attorneys.

10:30:14 24 Q. Do you remember which attorney?

10:30:14 25 MR. NUNLEY: Asked and answered.

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:30:20 2 MR. KILLORY: Different discussion.
10:30:22 3 Q. Let me clarify. Was that the same
10:30:24 4 discussion you were referring to before? Did you
10:30:26 5 have more than one conversation with Dr. Houghton
10:30:28 6 and the Philip Morris attorneys in connection
10:30:30 7 with the FDA tour?
10:30:32 8 A. Yes.
10:30:34 9 Q. You had a discussion on the 23rd --
10:30:38 10 the 22nd, at the conclusion of that day's tour,
10:30:40 11 was my understanding of your prior testimony; is
10:30:40 12 that correct?
10:30:42 13 A. That's correct.
10:30:42 14 Q. And then you had a subsequent
10:30:44 15 discussion on the 23rd following the conclusion
10:30:48 16 of that day's tour.
10:30:48 17 A. That's correct.
10:30:50 18 Q. And was it the same attorney each
10:30:50 19 time?
10:30:52 20 MR. NUNLEY: Mr. Killory, I object.
10:30:54 21 What right do you have to know which attorneys he
10:30:54 22 met with?
10:30:56 23 MR. KILLORY: I want to find out
10:30:58 24 which counsel he was talking to.
10:30:58 25 MR. NUNLEY: Why is that not

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:31:00 2 protected by the attorney-client --

10:31:02 3 MR. KILLORY: It's not protected.

10:31:02 4 MR. NUNLEY: Why is it of any
10:31:04 5 relevance in this case?

10:31:06 6 MR. KILLORY: To find out which
10:31:08 7 attorneys. It's a perfectly permissible
10:31:08 8 question.

10:31:16 9 A. I don't recall the attorney's name.

10:31:26 10 Q. Mr. Merrill, could you take a look at
10:31:30 11 what were marked yesterday's Exhibits 8 and 9 to
10:31:32 12 your deposition, the second from the end and
10:31:34 13 third from the end of that stack of exhibits in
10:31:36 14 front of you.

10:32:00 15 Exhibit Number 8 was the draft, the
10:32:08 16 eighth draft of the "How Cigarettes Are Made"
10:32:10 17 document which ultimately became the seven-minute
10:32:14 18 video you testified about yesterday. Do you
10:32:14 19 recall your testimony?

10:32:14 20 A. Yes.

10:32:20 21 Q. Exhibit Number 9 is a slightly
10:32:26 22 different version of that same document in what
10:32:28 23 appears to be more finished form. Yesterday I
10:32:32 24 believe you testified that you recalled seeing
10:32:36 25 Merrill Exhibit Number 8 in some form, in some

1 Merrill - Highly Confidential - Trade Secret
10:32:38 2 draft form; is that correct?

10:32:40 3 A. That's correct.

10:32:44 4 Q. Do you recall seeing Merrill Exhibit

10:32:48 5 Number 9 in the form in which it's in here?

10:32:48 6 A. No.

10:32:50 7 Q. Do you know whether Merrill Exhibit

10:32:54 8 Number 9 is the finished script for the

10:32:56 9 seven-minute video?

10:32:58 10 A. I have no idea.

10:33:02 11 Q. I am correct that you participated

10:33:06 12 with the folks from Reuter's in the preparation

10:33:10 13 of the script for the seven-minute video; is that

14 correct?

10:33:10 15 A. That's correct.

10:33:18 16 Q. I would like to ask you just a couple

10:33:20 17 of questions about a few of the differences

10:33:24 18 between Exhibit Number 8 and Exhibit Number 9, if

10:33:26 19 I could, please, to see if you recall any

10:33:30 20 discussion with the folks at Reuter's as to the

10:33:42 21 edits. If you could look at Exhibit Number 8 on

10:33:50 22 page number 2 of the script, which is PB 114263.

10:33:50 23 (Witness complies.)

10:33:58 24 Q. On the second paragraph in that page

10:34:02 25 that starts with "The separated water soluble

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
L 34:06 2 materials," do you see that paragraph?

10:34:06 3 A. Yes, I do.

10:34:08 4 Q. It states that "The separated water
10:34:12 5 soluble material contains numerous compounds, all
10:34:16 6 of which existed in and were naturally extracted
10:34:18 7 from the tobacco material. The water is
10:34:20 8 partially evaporated, leaving the tobacco
10:34:24 9 solubles."

10:34:26 10 It then goes on to say, "The solubles
10:34:28 11 are then mixed with flavorings, preservatives and
10:34:32 12 humectants which help maintain moisture and
10:34:34 13 pliability. The tobacco solubles are then
1 34:36 14 reapplied to the RL sheet."

10:34:40 15 And Exhibit Number 9 --

10:34:42 16 MR. NUNLEY: Objection, Mr. Killory.
10:34:44 17 Are you going to finish the paragraph?

10:34:46 18 MR. KILLORY: My question is limited
10:34:52 19 to the words. It's not the -- wait a second,
10:34:54 20 Chip. If after I ask the question I ask, you
10:34:56 21 want to say something, that's fine. I'm only
10:35:00 22 asking one question as to this paragraph and
10:35:04 23 that's, as to the words "tobacco solubles" that
10:35:06 24 appears in the portion that I read, appears
10:35:06 25 twice --

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

1 35:08 2 MR. NUNLEY: My objection is your
10:35:10 3 question is taking that portion out of context if
10:35:10 4 you don't complete the paragraph.

10:35:12 5 MR. KILLORY: I'm not taking anything
10:35:14 6 out of context. It's an exhibit to this
10:35:16 7 deposition. I'm asking about two words.

10:35:18 8 MR. NUNLEY: The two words --

10:35:20 9 MR. KILLORY: Two phrases.

10:35:22 10 MR. NUNLEY: You chose to read in the
10:35:22 11 first portion of the paragraph. You chose not to
10:35:28 12 read in the second portion of the paragraph.

10:35:28 13 MR. KILLORY: Chip, if we're going to
1 35:28 14 have the same discussion -- there's nothing about
10:35:28 15 the meaning of this paragraph other than the two
10:35:30 16 phrases that I'm about to ask about.

10:35:32 17 MR. NUNLEY: I don't care what you're
10:35:34 18 about to ask about, Mr. Killory. I'm telling you
10:35:36 19 if you are going to ask questions --

10:35:52 20 MR. KILLORY: "The RL is dried, cut
21 into lamina sized pieces and is ready to become
22 part of the tobacco blend. At no point in the
23 RL, reconstituted leaf process, is additional
24 nicotine introduced. In fact, the nicotine level
in the finished RL is 20 to 25 percent lower than

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:35:52 2 the nicotine level in the raw materials."

10:35:52 3 That's the rest of the paragraph, as
10:35:56 4 to which I don't have any questions. My question
10:35:56 5 is limited to two phrases.

10:35:58 6 Q. My question is, Mr. Merrill, in the
10:36:00 7 otherwise identical version of that same
10:36:02 8 paragraph that appears at the bottom of the first
10:36:08 9 page of Merrill number 9, "tobacco solubles" has
10:36:12 10 been edited to "the solubles" rather than "the
10:36:14 11 tobacco solubles."

10:36:16 12 MR. NUNLEY: Mr. Killory, I object to
10:36:18 13 your question because it has as an underlying
10:36:20 14 premise that Merrill number 9 came later in time
10:36:22 15 to Merrill number 8. I don't know that the
10:36:24 16 witness has testified to that. I don't know that
10:36:26 17 that's been established in the record.

10:36:26 18 MR. KILLORY: That's my first
10:36:28 19 question.

10:36:30 20 Q. Looking at those two documents, does
10:36:34 21 that aid your recollection any as to which of
10:36:36 22 these two documents preceded the other?

10:36:40 23 A. I have no idea.

10:36:46 24 Q. Do you recall any discussion in your
10:36:50 25 work with the Reuter's people on preparing the

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
4:36:52 2 script for the seven-minute tape as to the use of
10:36:54 3 the phrase "tobacco solubles" versus the use of
10:36:56 4 the word "solubles"?

10:37:02 5 A. No, I do not.

10:37:22 6 Q. Could you look at page 4 of Exhibit
10:37:24 7 Number 8, please.

10:37:24 8 (Witness complies.)

10:37:42 9 Q. The second paragraph down. The next
10:37:46 10 to last sentence of the second paragraph reads,
10:37:48 11 "Never at any point in the processing of any of
10:37:52 12 these components has any additional nicotine been
10:37:56 13 introduced."

1..37:58 14 The parallel paragraph in Exhibit
10:38:02 15 Number 9, the parallel sentence in that exhibit
10:38:06 16 reads, "No additional nicotine is introduced at
10:38:08 17 any point in the processing of any of these
10:38:16 18 components." Page PA 100482, which is the second
10:38:24 19 page of Exhibit Number 9. It's the second
10:38:28 20 sentence, again, of that paragraph.

10:38:32 21 Comparing those two sentences, my
10:38:34 22 only question is, do you have any recollection of
10:38:40 23 any discussion as to the phrasing of those two
10:38:42 24 versions of that sentence.

10:38:48 25 A. No.

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:38:50 2 Q. Does it refresh your recollection at
10:38:54 3 all as to which of these scripts preceded the
10:38:54 4 other?

10:38:56 5 A. I have no idea.

10:39:34 6 Q. If you could turn to page 6, the last
10:39:40 7 page of Exhibit Number 8, Mr. Merrill.

10:39:40 8 (Witness complies.)

10:39:48 9 Q. The first sentence on that page of
10:39:52 10 Exhibit Number 8 reads, "Nicotine in the
10:39:54 11 denatured alcohol contributes less than one one
10:39:58 12 thousandth of 1 percent of the nicotine content
1^ 40:00 13 of a cigarette. In fact there is less nicotine
10:40:02 14 in the final tobacco blend and indeed the final
10:40:04 15 cigarette than existed in the tobacco materials
10:40:06 16 before they were harvested or processed."

10:40:10 17 In the parallel paragraph of Exhibit
10:40:14 18 Number 9, which is PA 100483, the last page of
10:40:20 19 Exhibit Number 9, if you read up, counting the
10:40:22 20 last line as a paragraph, the third paragraph
10:40:24 21 from the bottom, again, the first letters are
10:40:28 22 cropped, but I think it's easy to tell what the
10:40:30 23 words are.

10:40:32 24 That first sentence reads, "Nicotine
10:40:34 25 in the denatured alcohol contributes no

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:40:40 2 measurable nicotine to the cigarette."

10:40:46 3 Do you recall any discussion with the
10:40:50 4 Reuter's folks in drafting scripts for the
10:40:58 5 seven-minute video as to whether to use the "less
10:41:02 6 than one one thousandth of 1 percent" or "no
10:41:04 7 measurable nicotine" description with regard to
10:41:06 8 the denatured alcohol?

10:41:06 9 MR. NUNLEY: Objection as to form.
10:41:08 10 It's a compound question.

10:41:10 11 Q. You can answer.

10:41:12 12 A. Would you just read it back, please.

10:41:14 13 Q. Let me ask a different question. Do
10:41:18 14 you recall any discussion in the context of
10:41:20 15 preparing the script on the subject of denatured
10:41:22 16 alcohol?

10:41:24 17 A. Yes.

10:41:26 18 Q. What do you recall?

10:41:30 19 A. The phone conversation with
10:41:30 20 Dr. Charles.

10:41:32 21 Q. The conversation you testified to
10:41:32 22 yesterday?

10:41:34 23 A. Mm-hmm. That's correct.

10:41:38 24 Q. In which you discussed what the
10:41:40 25 figure was, the measure of denatured alcohol, of

1 Merrill - Highly Confidential - Trade Secret
TU:41:44 2 nicotine in denatured alcohol; is that correct?
10:41:44 3 A. That's correct.
10:41:52 4 Q. Do you recall any discussions with
10:41:54 5 the Reuter's folks in the context of preparing
10:41:58 6 the seven-minute video script on the subject of
10:42:00 7 the "denatured alcohol" phrasing?
10:42:12 8 A. Could you please define "phrasing"?
10:42:14 9 Q. In Exhibit Number 8 versus Exhibit
10:42:20 10 Number 9 there are two different phrases. One
10:42:24 11 is, preceding the reference to nicotine, ~~it one~~
10:42:28 12 ~~referring to it as~~
10:42:28 13 refers to ~~there's~~ no measurable nicotine, that's
10:42:32 14 Exhibit Number 9. The other says, contributes
10:42:34 15 less than one one thousandth of 1 percent to the
10:42:36 16 nicotine content of the cigarette.
10:42:36 17 Do you recall any discussion on that
10:42:38 18 subject?
10:42:42 19 A. No.
10:42:44 20 Q. Do you know which phrasing was used
10:42:46 21 in the final script for the video?
10:42:50 22 A. No, I do not.
10:42:52 23 Q. And this doesn't refresh your
10:42:54 24 recollection as to which of Exhibit 8 or Exhibit
10:42:54 25 Number 9 preceded the other?
A. No.

MANHATTAN REPORTING CORP.

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1 Merrill - Highly Confidential - Trade Secret

10:43:18 2 Q. In your testimony yesterday, you
10:43:26 3 stated, I believe, that you had reviewed one set
10:43:28 4 of interrogatory responses that Philip Morris
10:43:28 5 filed; is that correct?

10:43:28 6 A. That's correct.

10:43:30 7 Q. Did you assist in the preparation of
10:43:34 8 the interrogatory responses that you reviewed?

10:43:36 9 A. No, I did not.

10:43:38 10 Q. Did you see them in draft form or
10:43:40 11 final, do you know?

10:43:48 12 A. No, I don't know.

10:44:08 13 MR. KILLORY: Chip, this isn't an
10:44:12 14 exhibit. Apparently we only have one copy. If I
10:44:14 15 could give it to the witness and the two of you
10:44:16 16 could share, I just have a couple of questions.

10:44:20 17 Q. Mr. Merrill, I've handed you a
10:44:24 18 document that's filed and of record in this case,
10:44:26 19 I think has been made an exhibit in other
10:44:28 20 depositions. I'm not making it an exhibit for
10:44:30 21 this one. Let me identify it for the record.

10:44:32 22 It's a copy of Philip Morris's
10:44:36 23 interrogatory answers and confidential addendum,
10:44:38 24 which was filed on I believe August 18th, 1994,
10:44:44 25 in response to interrogatories propounded by ABC

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:44:46 2 on May 12th, 1994.

10:44:50 3 MR. NUNLEY: I would point out that
10:44:52 4 it was Philip Morris, Incorporated's answers that
10:44:54 5 the witness has been handed.

10:44:54 6 MR. KILLORY: That's right.

10:45:02 7 Q. Could you turn to page 9 of the
10:45:06 8 confidential addendum, which is at the back of
10:45:22 9 the interrogatory responses. There's a paragraph
10:45:26 10 under number 2, "RL process." Could you just
10:45:30 11 read that first paragraph.

10:45:32 12 (Witness complies.)

10:46:10 13 Q. Have you had a chance to read the
10:46:10 14 paragraph?

10:46:12 15 A. Yes, I have.

10:46:14 16 Q. Did you participate in the drafting
10:46:16 17 of this paragraph?

10:46:20 18 A. Not that I recall, no.

10:46:22 19 Q. Do you recall being consulted with
10:46:24 20 regard to the subject matter of the paragraph?

10:46:28 21 A. No, I don't believe I was.

10:46:34 22 Q. In the sentence that reads "No
10:46:36 23 extraneous nicotine is added to the tobacco
10:46:40 24 materials in the process," "the process" being
10:46:42 25 the RL process, what do you understand the word

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1 Merrill - Highly Confidential - Trade Secret

10:46:44 2 "extraneous" to mean?

10:46:52 3 A. I understand the word "extraneous" in
10:46:54 4 this case to mean someone bringing in nicotine obtained
10:46:56 5 elsewhere and adding to the material.

10:47:02 6 Q. Elsewhere from other tobacco
10:47:02 7 product?

10:47:04 8 A. Wherever.

10:47:20 9 Q. The next sentence indicates that --
10:47:24 10 it reads, "In fact a significant reduction of the
10:47:26 11 nicotine naturally occurring in tobacco (of
10:47:28 12 approximately 18.8 percent based on the
7 47:32 13 measurement of alkaloids) occurs as a result of
10:47:34 14 both yield losses in the process and thermal
10:47:36 15 treatment in the drying process."

10:47:40 16 Apart from reading that paragraph,
10:47:48 17 were you aware of that 18.8 percent reduction in
10:47:48 18 nicotine?

10:47:52 19 MR. NUNLEY: Do you mean was he aware
10:47:56 20 of the specific percentage or the fact that there
10:47:56 21 is a reduction in nicotine?

10:47:58 22 MR. KILLORY: The specific
10:47:58 23 percentage, independent of this document.

10:47:58 24 Q. Do you have any awareness of that?

1 48:00 25 A. No.

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1 Merrill - Highly Confidential - Trade Secret

10:48:04 2 Q. Do you know how the nicotine loss is
10:48:04 3 determined?

10:48:08 4 A. How it is determined or how it was
10:48:10 5 determined for this particular number?

10:48:14 6 Q. Well, we'll start with this
10:48:14 7 particular number. Do you know how it was
10:48:16 8 determined for this particular number?

10:48:16 9 A. No, I do not.

10:48:18 10 Q. More generally, do you know how
10:48:20 11 nicotine loss is determined?

10:48:22 12 MR. NUNLEY: Objection as to form.
10:48:24 13 It's vague. You mean with respect to the RL
10:48:24 14 process?

10:48:28 15 Q. The loss -- accepting the 18.8
10:48:30 16 percent number, which I understood you were
10:48:32 17 carving out with your last answer, the process
10:48:34 18 that's described in the paragraph that we're
10:48:38 19 discussing, the nicotine loss. Do you know how
10:48:38 20 that loss is determined?

10:48:50 21 A. Any loss would be determined by
10:48:54 22 utilization of a material balance and analysis.

10:48:56 23 Q. What do you mean by use of material
10:48:58 24 balance and analysis?

10:49:02 25 A. You would analyze the different

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:49:04 2 streams for a given material.

10:49:06 3 Q. In the case of nicotine, do you know
10:49:08 4 how that's done?

10:49:10 5 A. Not specifically, no.

10:49:10 6 Q. How about generally?

10:49:12 7 A. Generally, yes.

10:49:14 8 Q. How is it done?

10:49:14 9 A. You would take the different
10:49:16 10 materials leaving the process and analyze them
10:49:18 11 for nicotine content.

10:49:24 12 Q. Do you know at what points in the RL
10:49:26 13 process materials are measured for nicotine
10:49:28 14 content?

10:49:30 15 MR. NUNLEY: Do you mean for purposes
10:49:32 16 of a material balance or on a regular basis?

10:49:36 17 MR. KILLORY: Let's start with on a
10:49:38 18 regular basis.

10:49:42 19 A. Nicotine is not measured on a regular
10:49:42 20 basis at the RL plant.

10:49:48 21 Q. How about for material balance? At
10:49:50 22 what points is nicotine measured in the RL
10:49:52 23 process?

10:49:56 24 A. We've run some stack emissions
10:50:02 25 testing. One of the constituents measured is

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:50:02 2 nicotine.

10:50:08 3 Q. To come up with some estimate of
10:50:10 4 nicotine loss you must have to have a measurement
10:50:12 5 of the materials as they come in; is that
6 correct?

10:50:14 7 A. That's correct.

10:50:16 8 Q. Do you know how that measurement is
10:50:16 9 done?

10:50:20 10 A. No, I do not.

10:50:22 11 Q. Do you know how often measurement of
10:50:24 12 the nicotine content of incoming materials in the
10:50:26 13 RL process is done?

10:50:28 14 A. No, I do not.

10:50:32 15 MR. NUNLEY: I object to the extent
10:50:34 16 your question suggests that nicotine is measured
10:50:38 17 on a regular basis in incoming raw materials. I
10:50:40 18 think what the record reflects is it may have
10:50:42 19 been done for specific purposes of the material
10:50:42 20 balance.

10:50:50 21 Q. Do you know who would know when
10:50:54 22 nicotine has been measured in incoming materials
10:50:54 23 in the RL process?

10:50:58 24 A. I have no idea.

1 51:06 25 Q. Do you know who would know when

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:51:08 2 nicotine has been measured for material balances
10:51:12 3 at any stage in the RL process?

10:51:12 4 A. Just read that back, please.

10:51:18 5 Q. Do you know who would know when

10:51:20 6 nicotine has been measured for any purpose, RL --
10:51:22 7 material balances or otherwise, in the RL

10:51:26 8 process?

10:51:28 9 A. No.

10:51:28 10 Q. You do not know?

10:51:30 11 A. No, I do not.

10:51:32 12 MR. NUNLEY: Mr. Merrill, he may be
10:51:34 13 including in his question stack emissions. I
10:51:36 14 don't know whether he is or not. The question is
10:51:36 15 vague.

10:51:36 16 A. The question is vague. "Who" to me
10:51:40 17 meant is/^{the} this a single person who knows whenever
10:51:44 18 any nicotine has ever been measured at Park 500.
10:51:46 19 I do not know if that person exists.

10:51:48 20 Q. Is there a person who is in charge of
10:51:50 21 taking nicotine measurements in incoming
10:51:52 22 materials whenever they may be taken?

10:51:58 23 A. Not that I'm aware of, no. Would you
10:52:00 24 read that question back?

10:52:02 25 Q. Is there a person who was in charge

MANHATTAN REPORTING CORP.

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1 Merrill - Highly Confidential - Trade Secret
10:52:04 2 of taking nicotine measurements in incoming
10:52:08 3 materials during the RL process whenever those
10:52:08 4 measurements may be taken?

10:52:10 5 A. Not that I'm aware of, no.

10:52:22 6 Q. Are alkaloid levels measured on a
10:52:24 7 regular basis in the RL process?

10:52:28 8 A. To my knowledge, alkaloid levels have
10:52:32 9 never been measured in the RL process.

10:52:34 10 Q. For material balance purposes or
10:52:34 11 regular?

10:52:36 12 A. For regular. I think your question
10:52:40 13 was regularly, or did I misunderstand you?

10:52:48 14 Q. That's right. That's right. ^{That's right. That's right. That's right.} That's right. ^{That's right.} That was my
10:52:50 15 question. When you said "ever," I didn't know
10:52:52 16 whether you were broadening your answer beyond ~~on~~
10:52:54 17 ~~a~~ regular basis. ^{I was answering your question}

10:52:56 18 A. ~~That's my answer.~~ On a regular
10:52:56 19 basis. ~~they're never done~~

10:52:58 20 Q. Do you know whether alkaloid levels
10:53:02 21 have ever been taken on any basis, any
10:53:04 22 measurements of alkaloid levels in the RL
10:53:04 23 process?

10:53:04 24 A. Yes.

10:53:08 25 Q. When have those measurements been

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:53:08 2 taken?

10:53:12 3 A. We have sampled some of the emissions
10:53:18 4 points for air purposes at Park 500.

10:53:24 5 Q. Is the alkaloid measurement in the
10:53:26 6 testing for air emission purposes the same
10:53:30 7 measurement as the nicotine measurement?

10:53:34 8 A. I honestly don't know.

10:53:38 9 Q. Do you know if there's a formula for
10:53:42 10 projecting nicotine content based on alkaloid
10:53:42 11 measurement?

10:53:46 12 MR. NUNLEY: In what substance?

10:53:46 13 MR. KILLORY: At any time in the
10:53:48 14 testing process.

10:53:48 15 MR. NUNLEY: In what substance?

10:53:54 16 MR. KILLORY: In any substance.

10:53:56 17 Q. Any alkaloid measure that you're
10:53:58 18 aware of in your professional capacity. Do you
10:54:00 19 know whether there's a formula for converting
10:54:02 20 that measurement to a nicotine figure?

10:54:08 21 A. No. I do not know.

10:54:14 22 Q. Do you know if there's any manual or
10:54:20 23 other document that instructs employees as to how
10:54:24 24 to take alkaloid or nicotine measurements at the
10:54:26 25 RL facility?

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:54:28 2 A. No, I do not.

10:54:28 3 Q. How about in connection with the

10:54:32 4 emissions testing of nicotine? Are there

10:54:36 5 documents reflecting how those tests are taken?

10:54:38 6 A. You need to be a little more

10:54:38 7 specific.

10:54:42 8 Q. Are there any guidelines, any manuals

10:54:46 9 or guidelines that instruct employees as to the

10:54:50 10 manner in which measurements are to be taken for

10:54:52 11 nicotine or alkaloid testing in the emissions

10:54:54 12 from the RL facility?

10:54:56 13 MR. NUNLEY: Objection as to form.

10:54:56 14 Compound.

10:55:00 15 A. Which employees are you referring

10:55:00 16 to?

10:55:02 17 Q. Any Philip Morris employees.

10:55:04 18 A. Any Philip Morris employees?

10:55:04 19 Q. That's right.

10:55:10 20 A. Not that I'm aware of, no.

10:55:14 21 Q. Is the emissions testing at the RL

10:55:14 22 facility something that falls within the

10:55:18 23 jurisdiction of your office?

10:55:18 24 A. That's correct.

10:55:24 25 Q. And who is responsible for that, the

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:55:24 2 emissions testing?

10:55:28 3 A. Bill Apple. William S. Apple.

10:55:44 4 Q. How about the testing of incoming raw
10:55:46 5 materials at the Park 500 facility? Has that
10:55:48 6 ever fallen within the jurisdiction of your
10:55:50 7 office?

10:55:50 8 MR. NUNLEY: The question is
10:55:54 9 nonsensical, Mr. Killory. The witness has
10:55:58 10 testified he's unaware of such testing.

10:56:02 11 Q. You can still answer the question.

10:56:04 12 A. Would you repeat the question?

10:56:06 13 Q. Has the testing of incoming raw
10:56:10 14 materials at Park 500 ever fallen within the
10:56:12 15 responsibility of your office?

10:56:12 16 A. No.

10:56:20 17 Q. Do you know at what points in the RL
10:56:26 18 process the level of solubles are tested, is
10:56:28 19 tested?

10:56:28 20 MR. NUNLEY: Objection. It's a very
10:56:32 21 vague question. How do you mean, the levels of
10:56:34 22 solubles? You mean in a tank, on the finished
10:56:38 23 sheet, in the size? It's too vague to be
10:56:38 24 answered.

10:56:40 25 Q. Do you understand the question?

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

4 10:56:42 2 A. Not specifically, no.

10:56:44 3 Q. Where are measurements taken in the
10:56:46 4 RL process of solubles?

10:57:00 5 A. I remember them being taken before
10:57:04 6 and after the evaporator. This would be after
10:57:06 7 the tobacco solubles were extracted from the
10:57:12 8 fiber. And I remember them being done on the
10:57:14 9 finished sheet.

10:57:14 10 MR. NUNLEY: Mr. Merrill, what is the
10:57:16 11 time frame of your answer?

10:57:18 12 THE WITNESS: That's between 1976 and
10:57:20 13 1982.

10:57:26 14 Q. You're not familiar with the RL
10:57:28 15 process after 1982?

10:57:32 16 A. There are some portions that have
10:57:34 17 been changed that I'm not familiar with.

10:57:36 18 Q. So when you were listed in the
10:57:40 19 interrogatory response of Philip Morris as one of
10:57:42 20 the handful of people most familiar with the RL
10:57:44 21 process, that's only accurate up to 1982?

10:57:48 22 MR. NUNLEY: That's not what he
10:57:50 23 answered. The import of his answer was certain
10:57:52 24 things have changed. Others remain the same.

10:57:58 25 Q. Are you familiar with the RL process

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

10:58:00 2 since 1982?

10:58:04 3 A. Which parts of it?

10:58:08 4 Q. The entire RL process.

10:58:10 5 A. I am not familiar with the entire RL
10:58:12 6 process since 1982.

10:58:14 7 Q. What parts are you familiar with?

10:58:22 8 A. What parts am I familiar with? The
10:58:32 9 line 1 operations, line 2, boiler house, waste
10:58:38 10 treatment, and all that's exclusive of whatever
10:58:42 11 particular product they may happen to be running
10:58:44 12 or have run since 1982.

10:58:48 13 Q. Did you understand that you had been
10:58:50 14 listed as one of the handful of people most
10:58:52 15 familiar with RL process in the Philip Morris
10:58:54 16 interrogatory responses?

10:58:58 17 A. Not until you showed me yesterday.

10:59:24 18 Q. Apart from the question answered by
10:59:28 19 Mr. Annamanthadoo, did anyone else answer
10:59:32 20 questions posed by the FDA during the FDA tour
10:59:38 21 regarding the RL process, besides you?

10:59:38 22 MR. NUNLEY: Do you mean at that
10:59:40 23 portion of the tour conducted at the RL
10:59:42 24 facility?

10:59:42 25 MR. KILLORY: That's right.

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
10:59:48 2 A. I don't recall specifically.
10:59:52 3 Q. But you conducted the tour of the RL
10:59:54 4 facility, is that correct, with the FDA
10:59:56 5 personnel?
11:00:10 6 A. That's correct. Could we take a
11:00:10 7 short break?
11:00:12 8 Q. Sure.
11:00:12 9 THE VIDEO OPERATOR: We're going off
11:00:16 10 the record. The time on the screen is 11:00:13.
11:00:18 11 (A recess was taken.)
11:15:16 12 THE VIDEO OPERATOR: We're back on
11:15:22 13 the record. The time on the screen is 11:15:19.
11:15:30 14 MR. KILLORY: Please mark this as
11:15:30 15 11.
16 (Merrill Exhibit 11 for
17 identification, research and development chemical
18 analysis section service request and data sheet.)
11:16:12 19 Q. Mr. Merrill, I've just handed you a
11:16:14 20 document that has been marked Merrill Exhibit
11:16:18 21 Number 11. It is a two-page document with a
11:16:24 22 Bates stamp PA 397219 through 20. The production
11:16:30 23 number is 2025329844 through 456789, ¹¹⁵ ¹⁴⁵ entitled
11:16:32 24 "Research and development chemical analysis
11:16:36 25 section service request and data sheet." Under

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
11:16:40 2 the request description is "Weigan evaporator run
11:16:44 3 on RLBTW line 3," and set forth below that are a
11:16:46 4 series of measurements.

11:16:48 5 Can you take a look at the document,
11:16:48 6 please.

11:16:48 7 (Witness complies.)

11:17:42 8 Q. Have you had a chance to look at
11:17:44 9 Exhibit Number 11, Mr. Merrill?

11:17:44 10 A. Yes, I have.

11:17:46 11 Q. Do you recall ever seeing this
11:17:48 12 document before?

11:17:50 13 A. No, I have not.

11:17:56 14 Q. Do you recall ever seeing documents
11:17:56 15 in the same form as this document?

11:17:56 16 A. No, I have not.

11:18:02 17 Q. In the measurements that are listed,
11:18:06 18 one of the measurements is alkaloids, along with
11:18:10 19 a variety of other substances. Do you know just
11:18:16 20 from looking at this document and the request
11:18:16 21 description at what point in the process these
11:18:18 22 measurements were taken?

11:18:20 23 MR. NUNLEY: Objection as to form. I
11:18:24 24 think, Mr. Killory, your question assumes the
11:18:26 25 tests were taken as part of the process. That's

1 Merrill - Highly Confidential - Trade Secret
11:18:30 2 not established in the record, and the document
11:18:30 3 certainly doesn't support that.

11:18:32 4 MR. KILLORY: Let me rephrase the
11:18:34 5 question. It's a fair point.

11:18:38 6 Q. Do you know from the request
11:18:44 7 description, and from the test measurements
11:18:48 8 listed below, at what point these measurements
11:18:50 9 were taken?

11:18:54 10 A. No, I do not.

11:18:58 11 Q. The Weigan evaporator run doesn't
11:19:00 12 have any particular significance?

11:19:06 13 A. The Weigan evaporator was a new piece
11:19:08 14 of equipment put in long after I left Park 500.

11:19:14 15 Q. Do you know what -- the series of
11:19:22 16 references to K2APB-1 and continuing right up
11:19:26 17 through dash 12, do you know what those refer to,
11:19:28 18 those different labels?

11:19:28 19 A. No, I do not.

11:19:36 20 Q. This is not an alkaloid test that
11:19:38 21 you're familiar with at Park 500?

11:19:40 22 MR. NUNLEY: Objection, to the extent
11:19:44 23 it assumes there was an alkaloid test that was
11:19:46 24 done at Park 500. Again, it's not established by
11:19:48 25 the record, it's not established by the

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1 Merrill - Highly Confidential - Trade Secret

11:19:48 2 document.

11:19:50 3 Q. Do you know what RLBTW is?

11:19:54 4 A. RLB --

11:19:56 5 Q. At ^{document} the top of the page. Let me refer
11:20:00 6 you to the "Weigan evaporator run on RLBTW."

11:20:02 7 A. Oh.

11:20:04 8 Q. Does ^{that} ~~this~~ refer to RL product?

11:20:12 9 A. I'm not sure specifically what that
11:20:14 10 group of letters refers to.

11:20:16 11 Q. So you don't know whether that refers
11:20:18 12 to a product that's produced at the RL facility?

11:20:22 13 A. Not one that I know of, no.

11:20:24 14 Q. Is the Weigan evaporator -- the
11:20:28 15 reference to the Weigan evaporator, line 3, do
11:20:30 16 you know whether that refers to the Park 500
11:20:30 17 facility?

11:20:34 18 A. That's the only place that I know we
11:20:38 19 have Weigan evaporators.

11:20:42 20 Q. You can put that exhibit aside,
11:20:46 21 Mr. Merrill. Are you familiar with the
11:20:50 22 denitration process at the RL facility?

11:20:50 23 A. Yes, I am.

11:20:52 24 Q. Could you describe for me what the
11:20:54 25 denitration process is?

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11:21:04 2 A. The process consists of a set of
11:21:10 3 coolers that cools off the product from the
11:21:16 4 evaporators down to about 10 degrees Fahrenheit.
11:21:22 5 At that range of temperature, crystals of
11:21:24 6 potassium nitrate form. It goes through a
11:21:26 7 centrifuge to separate the crystals from the
11:21:30 8 remaining material.

11:21:34 9 When I was at Park 500 from '76 to
11:21:38 10 '82, it used to go into a little tank with some
11:21:42 11 very cold water to wash some of the materials out
11:21:48 12 from the nitrates, soluble materials, and then
1 21:50 13 they were separated in a second centrifuge to
11:21:52 14 separate the crystals from that wash water.

11:22:12 15 Q. When you took the FDA personnel on
11:22:16 16 the tour, I'm correct you testified you didn't do
11:22:18 17 any special preparation before that tour; is that
11:22:18 18 right?

11:22:20 19 A. That's correct.

11:22:22 20 Q. You were notified the evening -- the
11:22:26 21 late afternoon of the day before, and took them
11:22:30 22 on the tour the next morning; is that correct?

11:22:30 23 A. That's correct.

11:22:34 24 Q. When you took them on the tour of the
1 22:36 25 RL facility, what was the basis for your

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
11:22:38 2 knowledge about the RL process that you were
11:22:40 3 describing to the FDA personnel?

11:22:48 4 A. The basis of my knowledge was the six
11:22:50 5 years ^{Wk} I had worked at Park 500.

11:22:52 6 Q. 1976 through 1982?

11:22:54 7 A. That's correct.

11:23:00 8 Q. Going back to potassium nitrate, do
11:23:02 9 you know why the potassium nitrate is removed
11:23:06 10 from the product that's produced at the Park 500
11:23:06 11 facility?

11:23:08 12 A. No, I do not.

11:23:14 13 Q. The confidential addendum states that
11:23:16 14 potassium nitrate would produce nitrogen oxide
11:23:22 15 when smoked. Are you familiar with that?

11:23:24 16 A. No.

11:23:26 17 Q. Do you know for a fact that nitrogen
11:23:30 18 oxide would be produced by the smoking of
11:23:32 19 material containing potassium nitrate?

11:23:34 20 A. No, I do not.

11:23:36 21 Q. Have you ever heard that there was a
11:23:38 22 health risk associated with potassium nitrate in
11:23:40 23 a cigarette?

11:23:42 24 A. No, I did not.

11:23:44 25 Q. Ever had any discussions with anybody

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
11:23:46 2 on that subject?

11:23:54 3 A. I probably heard some fourth or fifth
11:23:54 4 hand conversation.

11:23:58 5 Q. On the subject of the health risk of
11:23:58 6 potassium nitrate?

11:24:02 7 A. No, not exactly the health risk of
11:24:06 8 potassium nitrate, but as to why the nitrates are
11:24:06 9 being removed.

11:24:08 10 Q. And what's your understanding as to
11:24:16 11 why the nitrates are being removed?

11:24:18 12 MR. NUNLEY: He said he heard it
11:24:22 13 fourth or fifth hand. I don't know if he's
11:24:24 14 adopted it as his understanding.

11:24:24 15 Q. Do you have any understanding?

11:24:24 16 A. No.

11:24:28 17 Q. Did you ever ask anyone in the course
11:24:30 18 of your work at the Park 500 facility why the
11:24:34 19 potassium nitrate is removed?

11:24:36 20 A. No.

11:24:36 21 Q. Do you know how expensive the process
11:24:40 22 is for Philip Morris to remove the potassium
11:24:40 23 nitrates?

11:24:44 24 A. No, I do not.

11:24:52 25 Q. Do you know what percentage of the

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
24:58 2 total solubles removed from the raw materials in
11:25:02 3 the RL process is represented by the potassium
11:25:06 4 nitrate that is taken out in the denitration
11:25:06 5 process?

11:25:08 6 MR. NUNLEY: Objection as to form.

11:25:10 7 A. You need to read that back again.

11:25:12 8 Q. Okay. Of the total solubles, the
11:25:14 9 solubles component after the solubles is
11:25:18 10 separated from the fiber in the RL process, are
11:25:18 11 you with me that far?

11:25:20 12 A. Let's start all over again. I'm
11:25:20 13 sorry.

11:25:22 14 Q. What are the solubles in the RL
11:25:22 15 process?

11:25:28 16 A. The solubles are that part of the
11:25:32 17 tobacco plant that are soluble in hot water.

11:25:36 18 Q. Are those solubles removed from the
11:25:38 19 raw materials as part of the RL process?

11:25:42 20 A. The solubles are separated from the
11:25:44 21 fiber portion of the tobacco, that's correct.

11:25:48 22 Q. And the potassium nitrate we were
11:25:52 23 just discussing is contained in those soluble
11:25:54 24 materials; is that correct?

11:25:54 25 A. That's correct.

MANHATTAN REPORTING CORP.

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1 Merrill - Highly Confidential - Trade Secret

11:25:58 2 Q. Do you know what percentage of those
11:26:00 3 soluble materials is represented by the potassium
11:26:02 4 nitrate by weight?

11:26:04 5 A. No, I do not.

11:26:06 6 Q. Do you have any idea?

11:26:08 7 A. It varies.

11:26:12 8 Q. What is the range of the variation?

11:26:16 9 A. I don't recall a range. I know that
11:26:22 10 at one point in time I was aware of one crop year
11:26:26 11 that had more nitrate, potassium nitrate, than
11:26:28 12 the previous year.

11:26:32 13 Q. So it can vary from crop year to crop
11:26:32 14 year?

11:26:32 15 A. That's correct.

11:26:34 16 Q. Any ball park number that you're
11:26:36 17 familiar with as to what the percentage by weight
11:26:38 18 is of the potassium nitrate?

11:26:42 19 MR. NUNLEY: When you say "is," do
11:26:42 20 you mean does he have knowledge of the current
11:26:46 21 weight percentage of potassium nitrate in the
11:26:48 22 solubles?

11:26:50 23 MR. KILLORY: Let me rephrase it.

11:26:52 24 Q. You've testified that it varies. My
11:26:54 25 question is, have there been -- at any time is

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MANHATTAN REPORTING CORP.

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11:26:56 2 there a number attached to that percentage that
11:26:58 3 varies? Have you ever known what the percentage
11:27:04 4 was at any time of a potassium nitrate as a
11:27:06 5 percentage of the solubles in the RL process?
11:27:10 6 A. I'm sure I was, but I can't remember
11:27:10 7 what the number was.
11:27:12 8 Q. Even as a ball park figure, you don't
11:27:12 9 know?
11:27:14 10 A. No.
11:27:20 11 Q. When the potassium nitrate is removed
11:27:24 12 in the denitration process, is there some element
11:27:30 13 added to substitute for it?
11:27:30 14 A. No.
11:27:38 15 Q. Is there any other measurement for
11:27:42 16 potassium nitrate besides weight that you're
11:27:46 17 familiar with such as volume?
11:27:54 18 MR. NUNLEY: Objection as to form.
11:27:56 19 A. I'm not sure ^{what you mean by} I understand.
11:27:56 20 Q. I previously asked you about the
11:28:00 21 percentage in the overall solubles. Are you
11:28:02 22 familiar with any measurements of potassium
11:28:04 23 nitrate by volume as a percentage of the overall
11:28:06 24 volume of solubles?
11:28:08 25 A. No.

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MANHATTAN REPORTING CORP.

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11:28:18 2 Q. When the potassium nitrate is removed
11:28:24 3 from the solubles, are the solubles, the
11:28:26 4 remaining ^{solubles} components in the remaining solubles
11:28:30 5 more concentrated as a result of the removal of
11:28:36 6 the potassium nitrate?

11:28:36 7 A. I have no idea.

11:28:40 8 Q. You don't have any understanding as
11:28:42 9 to whether the removal of potassium nitrate from
11:28:44 10 the solubles would result in a higher
11:28:48 11 concentration of the other components as a
11:28:50 12 percentage of the remaining solubles?

11:28:56 13 A. I'm not even sure it would.

11:29:00 14 Q. If you take out one element in the
11:29:04 15 solubles and not replace it with another, you
11:29:06 16 don't know that that would result in a higher
11:29:08 17 concentration of the other components as a
11:29:10 18 percentage of the remaining solubles?

11:29:12 19 MR. NUNLEY: Mr. Killory, I think
11:29:16 20 your question presumes that the only soluble
11:29:18 21 element that comes out in nitrate extraction is
11:29:20 22 nitrates. I don't think that's established in
11:29:22 23 the record or the testimony.

11:29:24 24 MR. KILLORY: It doesn't presume
11:29:28 25 anything about the exclusive -- just limiting it

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MANHATTAN REPORTING CORP.

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11:29:32 2 to the elimination, the removal of the potassium
11:29:34 3 nitrate from the solubles.

11:29:36 4 Q. Potassium nitrate is one constituent
11:29:38 5 component of the solubles; is that correct?

11:29:38 6 A. That's correct.

11:29:42 7 Q. When that one constituent component
11:29:44 8 is removed, the remaining constituent components
11:29:46 9 of the solubles have a higher percentage of the
11:29:48 10 overall total of the solubles; is that correct?

11:29:50 11 MR. NUNLEY: Mr. Killory, your
11:29:52 12 question has the same basic flaw, and that is it
11:29:56 13 presumes the nitrate is -- the nitrate's removal
11:30:00 14 is perfectly selective. If it's not perfectly
11:30:02 15 selective and other components of the soluble
11:30:04 16 stream come out with the nitrates, then there's
11:30:06 17 no basis for your question.

11:30:08 18 Q. Do you understand my question?

11:30:10 19 A. I'm not sure I understand your
11:30:12 20 question.

11:30:30 21 Q. Let me ask it in terms of the
11:30:32 22 hypothetical. If a constituent in a mix of
11:30:36 23 solubles, and by now I'm not referring to the
11:30:40 24 solubles at Park 500, if a constituent element of
11:30:44 25 a universe of solubles is taken out of those

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MANHATTAN REPORTING CORP.

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11:30:48 2 solubles, are the remaining constituent elements
11:30:52 3 in those solubles a higher percentage of the
11:30:54 4 overall total than they were before that
11:30:58 5 constituent element was taken out?

11:30:58 6 MR. NUNLEY: Objection as to form.
11:31:00 7 It's a hypothetical. It's not supported by the
11:31:00 8 facts in the record.

11:31:00 9 Q. Do you understand the question?

11:31:04 10 A. *Yes, but* ^{not} I don't know what the answer
11:31:04 11 is.

11:31:14 12 Q. When the potassium nitrate is taken
11:31:16 13 out in the RL process, do you know if other
11:31:20 14 elements of the solubles are taken out at the
11:31:20 15 same time?

11:31:20 16 A. Yes, they are.

11:31:22 17 Q. What are those elements?

11:31:22 18 A. I have no idea.

11:31:26 19 Q. In what amount are those elements
11:31:28 20 taken out?

11:31:32 21 A. I don't recall the exact number.

11:31:34 22 Q. What happens to those elements?

11:31:36 23 A. As I stated earlier, they're washed
11:31:40 24 with cold water and the water separated, and what
11:31:44 25 remains in the potassium nitrate crystals is not

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MANHATTAN REPORTING CORP.

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11:31:46 2 100 percent potassium nitrate. There is still
11:31:50 3 some soluble material included with the crystals.

11:31:50 4 Q. Do you know what the percentage
11:31:54 5 relationship of potassium nitrate to other
11:31:56 6 elements in the potassium nitrate crystals is?

11:31:58 7 A. No.

11:32:04 8 Q. Who would know the answer to that?

11:32:06 9 A. I have no idea.

11:32:16 10 Q. What do you do, what does Philip
11:32:18 11 Morris do with the potassium nitrates?

11:32:24 12 A. The nitrate is sold to a fertilizing
11:32:24 13 manufacturer.

11:32:28 14 Q. Are there other elements still in the
11:32:30 15 potassium nitrate when they're sold to the
11:32:32 16 fertilizer manufacturer?

11:32:32 17 A. That's correct.

11:32:34 18 Q. You don't know what those other
11:32:34 19 elements are?

11:32:36 20 A. No, I do not.

11:32:38 21 Q. Do those other elements contain
11:32:38 22 nicotine?

11:32:42 23 A. I don't know if they do or not.

11:32:50 24 Q. Do you know whether Philip Morris has
11:32:52 25 ever calculated the extra cost it incurs to

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MANHATTAN REPORTING CORP.

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11:32:56 2 remove nitrates in the RL process?

11:32:58 3 A. No, I do not.

11:33:00 4 Q. Do you know whether Philip Morris has

11:33:02 5 ever considered for financial reasons or

11:33:06 6 otherwise ceasing the removal of potassium

11:33:08 7 nitrates in the RL process?

11:33:10 8 A. No, I do not.

11:33:28 9 Q. Do you know whether other constituent

11:33:32 10 components of the solubles could be removed in

11:33:34 11 the same manner as the potassium nitrates are

11:33:36 12 removed?

11:33:36 13 MR. NUNLEY: How do you mean? Using
11:33:38 14 the nitrate extraction process?

11:33:40 15 MR. KILLORY: A process like that.

11:33:42 16 MR. NUNLEY: What do you mean by "a
11:33:42 17 process like that"?

11:33:44 18 MR. KILLORY: An extraction process.

11:33:48 19 MR. NUNLEY: Objection as to form.
11:33:48 20 Vague.

11:33:48 21 A. It's vague.

11:33:50 22 Q. Do you know whether it's
11:33:54 23 technologically possible to remove other
11:33:56 24 constituent elements of the solubles besides the
11:33:58 25 potassium nitrates?

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MANHATTAN REPORTING CORP.

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11:33:58 2 A. Yes.

11:34:04 3 Q. Are there any constituent elements of

11:34:06 4 the solubles that could not be removed by an

11:34:08 5 extraction process with the existing technology?

11:34:08 6 A. I don't know.

11:34:12 7 Q. Could other constituent elements be

11:34:18 8 removed by a process identical to that used for

11:34:18 9 the potassium nitrates?

11:34:20 10 MR. NUNLEY: You mean a

11:34:22 11 crystallization nitrate removal system?

11:34:24 12 MR. KILLORY: That's right. A

11:34:26 13 crystallization system.

11:34:32 14 A. I don't know how to answer that

11:34:34 15 question.

11:34:36 16 Q. The question is simply do you know

11:34:38 17 whether other constituent elements could be

11:34:44 18 removed through a centrifugal crystallization

11:34:46 19 process such as that used for the potassium

11:34:48 20 nitrate removal.

11:34:50 21 A. No, I don't know.

11:34:58 22 Q. Are you aware of any discussion of

11:35:02 23 removing other constituent elements from the

11:35:06 24 solubles in the RL process?

11:35:08 25 A. None that I'm aware of, no.

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MANHATTAN REPORTING CORP.

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11:35:16 2 Q. In your familiarity with the RL
11:35:18 3 process, do you know whether other constituent
11:35:22 4 elements have ever been removed from the solubles
11:35:24 5 other than the potassium nitrates?

11:35:34 6 A. You mean such as the potassium
11:35:34 7 nitrate?

11:35:38 8 Q. Beyond the potassium nitrate are
11:35:40 9 there other constituent elements that have been
11:35:42 10 removed in the RL process at any time that you're
11:35:42 11 familiar with?

11:35:44 12 A. No.

11:35:52 13 Q. Are you familiar with the pulper as
11:35:54 14 part of the RL process?

11:35:54 15 A. Yes.

11:35:58 16 Q. What happens in the pulper?

11:36:04 17 A. In the pulper you add your raw
11:36:10 18 materials and hot water, and you agitate it, and
11:36:16 19 once it's agitated you discharge the solution
11:36:20 20 from -- or mixture, I guess it really is -- from
11:36:20 21 the pulper.

11:36:26 22 Q. Besides the water and the raw
11:36:28 23 materials, is anything else introduced to the
11:36:32 24 pulper in that process?

11:36:40 25 A. Occasionally steam.

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MANHATTAN REPORTING CORP.

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11:36:42 2 Q. Do you know whether portions of the
11:36:46 3 solubles from earlier batches of raw material
11:36:48 4 processing are introduced into the pulper?

11:36:50 5 A. They are part of the hot water that
11:36:54 6 you use to extract material from -- in the
11:36:54 7 pulper.

11:36:56 8 Q. So the hot water that's introduced
11:37:00 9 into the pulper along with the new raw materials
11:37:02 10 includes in it some solubles?

11:37:02 11 A. That's correct.

11:37:04 12 Q. Where do those solubles come from?

11:37:10 13 A. Those solubles come from the paper
11:37:12 14 machine.

11:37:16 15 Q. The processing of earlier batches of
11:37:18 16 raw materials through the paper machine?

11:37:22 17 A. When you form the sheet -- or let's
11:37:24 18 put it this way. When you form a sheet of paper,
11:37:28 19 you have copious amounts of water which helps
11:37:30 20 make the sheet. So as that sheet is being formed
11:37:36 21 those copious amounts of water come out.

11:37:36 22 So then they're collected and they're
11:37:40 23 recycled in all of the paper type plants.

11:37:44 24 Q. Are there any solubles recycled from
11:37:50 25 the soluble processing portion of the RL process

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MANHATTAN REPORTING CORP.

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11:37:54 2 back into the pulper?

11:37:56 3 A. You're going to have to repeat that.

11:37:56 4 I don't --

11:37:56 5 Q. Okay. You've described the fiber
11:38:02 6 paper creation side, creating some solubles, some
11:38:04 7 water containing solubles that are recycled back
11:38:06 8 to the pulper; correct?

11:38:08 9 A. That's correct.

11:38:10 10 Q. After the fiber separated from the
11:38:16 11 solubles, the solubles are processed; is that
12 correct?

11:38:16 13 A. That's correct.

11:38:18 14 MR. NUNLEY: Mr. Killory, you're
11:38:20 15 asking all your questions in the present tense.
11:38:22 16 I am going to ask for a continuing objection and
11:38:24 17 understanding that this witness is testifying
11:38:28 18 based on his knowledge of the process as it
11:38:30 19 existed from '76 to '82.

11:38:32 20 Q. Do you have any basis for any
11:38:34 21 understanding of the RL process since 1982?

11:38:46 22 A. I understand the basic concepts of
11:38:48 23 producing an RL sheet.

11:38:50 24 Q. I'll certainly stipulate all these
11:38:52 25 questions are directed to whatever your

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MANHATTAN REPORTING CORP.

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11:38:54 2 understanding is of the RL process, that when I
11:38:56 3 say "is," I mean in the present tense of your
11:39:00 4 understanding, your current understanding based
11:39:02 5 on '76 through '82 or anything else that you
11:39:04 6 know. That's what I mean.

11:39:06 7 MR. KILLORY: So in that form I agree
11:39:08 8 to your stipulation.

11:39:26 9 Q. In the processing of the solubles,
11:39:28 10 are there any soluble materials that are
11:39:34 11 generated and recycled back into the pulper?

11:39:40 12 A. No.

11:39:46 13 Q. Are you familiar with the term "weak
11:39:48 14 extracted liquor"?

11:39:52 15 A. Yes.

11:39:54 16 Q. What is weak extracted liquor?

11:40:00 17 A. Well, first off, I don't use those
11:40:08 18 terms per se. They're typified as WEL-1 or "well
11:40:10 19 1," "well 2." When you discharge the pulper
11:40:14 20 through the first press, that material is called
11:40:18 21 SEL. And then as you pass it through the second
11:40:22 22 press to squeeze more water out, the amount of
11:40:24 23 solubles in that water is less than the first, so
11:40:28 24 that's WEL-1.

11:40:28 25 A. And then when you go in the third

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11:40:32 2 press and squeeze it one last time, that material
11:40:36 3 has even less solubles in it. That's called
11:40:36 4 WEL-2.

11:40:38 5 Q. Just for the record, when you're
11:40:44 6 saying WEL-1 and WEL-2, that's WEL dash 1, WEL
11:40:48 7 dash 2. And the SEL you referred to is an
11:40:50 8 abbreviation for strong extracted liquor; is that
9 correct?

11:40:52 10 A. That's correct.

11:40:58 11 Q. Do you know whether the -- which of
11:41:02 12 the WELs is circulated back into the pulper?

11:41:14 13 A. I don't ever remember any of them
11:41:14 14 going back into the pulper.

11:41:14 15 Q. So as far as you're aware, the WEL in
11:41:18 16 any form is not circulated back to the pulper?

11:41:18 17 A. Not that I'm aware of, no.

11:41:20 18 Q. How about, are you aware of any
11:41:24 19 instances in which the strong extracted liquor,
11:41:28 20 the SEL, is recycled back into the pulper in the
11:41:30 21 course of RL production?

11:41:30 22 A. No.

11:41:36 23 Q. If it were, would that be extraneous
11:41:38 24 solubles to the raw materials that are being
11:41:40 25 added to the pulper?

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11:41:48 2 A. I'm not sure exactly what would
11:41:52 3 happen. I don't know what the holding capacity
11:41:54 4 of the water is for solubles.

11:41:56 5 Q. How does that impact whether the
11:41:58 6 solubles being sent back to the pulper to be
11:42:04 7 joined with new raw materials are extraneous?

11:42:06 8 A. Well, if -- again, I don't know what
11:42:10 9 the holding capacity of the water is, but when
11:42:16 10 you solubilize materials, water can only hold so
11:42:20 11 much of a given type of material.

11:42:22 12 If I put a stream back such as that
11:42:26 13 into the pulper, then what that may very well
11:42:30 14 mean is I don't get enough away from the fiber,
11:42:34 15 so that the fiber now is not as clean as it needs
11:42:38 16 to be. So it would seem kind of fruitless to
11:42:42 17 work so hard to get it out and then put it back
11:42:44 18 where you started it from.

11:42:48 19 Q. Apart from whether it would be
11:42:52 20 fruitless, my question is just limited to if in
11:42:58 21 fact solubles in the form of SEL or WEL are
11:43:00 22 recirculated back into the pulper to be mixed up
11:43:04 23 with ^{new} batches of incoming new raw materials, would
11:43:08 24 those solubles be extraneous to the new batches
11:43:10 25 of raw materials?

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MANHATTAN REPORTING CORP.

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11:43:12 2 MR. NUNLEY: Well, I object to that
11:43:14 3 because I don't think there's any testimony that
11:43:18 4 it is recycled, and I'm talking now any testimony
11:43:20 5 in the record at all from one batch to the next.
11:43:26 6 I don't think your hypothetical is based on facts
11:43:28 7 established in the record.

11:43:30 8 Q. Do you understand the question I
11:43:30 9 asked?

11:43:34 10 A. Not specifically, no.

11:44:06 11 Q. Let me repeat the question. If the
11:44:14 12 SEL or WEL are circulated back into the pulper to
11:44:16 13 be mixed up with batches of incoming raw
11:44:20 14 material, would those solubles be extraneous to
11:44:22 15 those raw materials being introduced into the
11:44:24 16 pulper?

11:44:24 17 MR. NUNLEY: Same objection. This
11:44:26 18 time it's a compound question.

11:44:28 19 A. What is your definition of
11:44:30 20 "extraneous"?

11:44:32 21 Q. What was your definition earlier in
11:44:34 22 your testimony?

11:44:40 23 A. I took your "extraneous" to mean it
11:44:42 24 just kind of sits there and has no effect on the
11:44:42 25 process as it goes on.

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MANHATTAN REPORTING CORP.

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11:44:48 2 Q. Is that your definition of
11:44:48 3 "extraneous"?

11:44:52 4 A. That's why I asked you what you were
11:44:54 5 referring to. I mean, that's my understanding of
11:44:56 6 what you asked me. That's why I gave the
11:44:56 7 explanation --

11:44:58 8 Q. When I earlier asked you for your
11:45:00 9 definition of "extraneous," I don't have the
11:45:02 10 exact words, do you recall what you testified?

11:45:04 11 MR. NUNLEY: Why don't we stop and
11:45:06 12 look for it, Mr. Killory. That's the reason for
11:45:08 13 having this high tech gizmo that's in front of
11:45:10 14 both of us.

11:45:16 15 Q. Do you know what rich brown water is
11:45:18 16 in the context of the RL process?

11:45:20 17 A. Yes, I do.

11:45:22 18 Q. What is rich brown water?

11:45:34 19 A. Rich brown water is most often strong
11:45:36 20 brown water.

11:45:38 21 Q. And what is strong brown water? Are
11:45:40 22 they the same thing or different?

11:45:44 23 A. Most of the time they are the same.

11:45:48 24 Q. Is one stronger? How are they
11:45:52 25 different, when they are different? Is one a

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11:45:54 2 subcategory -- let me strike the previous

11:45:58 3 question. Is one a subcategory of the other?

11:46:00 4 MR. NUNLEY: Is one what a

11:46:00 5 subcategory --

11:46:02 6 MR. KILLORY: The two items we're

11:46:04 7 talking about, rich brown water and strong brown

11:46:04 8 water.

11:46:10 9 A. What do you define by --

11:46:12 10 Q. You said most of the time they're the
11:46:12 11 same, sometimes they're different.

11:46:12 12 A. That's correct.

11:46:14 13 Q. Can you explain to me, when they're
11:46:16 14 different, how they are different?

11:46:24 15 A. Sometimes if there is not enough RBW
11:46:30 16 to feed the pulpers, you introduce fresh water to
11:46:30 17 make up the volume.

11:46:38 18 Q. Let me go back to "extraneous" for a
11:46:40 19 moment. In your earlier testimony you said, "I
11:46:44 20 understand the word 'extraneous' in this case to
11:46:46 21 mean someone bringing in" -- it reads "nickels,"
11:46:50 22 I believe you said "materials" -- "from elsewhere
11:46:50 23 and adding to the material." That's not
11:46:54 24 literally what this transcript says, but I
11:46:56 25 believe that's what you said.

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11:46:56 2 A. Correct.

11:46:58 3 Q. Under that definition of
11:47:00 4 "extraneous," I said, "Elsewhere from other
11:47:04 5 tobacco product"? You said, "Wherever."

11:47:04 6 A. That's correct.

11:47:04 7 Q. To complete the definition of
11:47:06 8 "extraneous." Under that definition of
11:47:14 9 "extraneous," let me go back to my previous
11:47:16 10 question.

11:47:16 11 . MR. NUNLEY: Wait a minute. Wait a
11:47:20 12 minute. Go back to that. Your earlier question
11:47:24 13 was in the context of the process. He said
11:47:40 14 extraneous to the process. The question was, "In
11:47:42 15 the sentence that reads, 'No extraneous nicotine
11:47:44 16 is added to the tobacco materials in the
11:47:50 17 process,' 'process' being the RL process, what do
11:47:52 18 you understand the word 'extraneous' to mean?"

11:47:52 19 And he says, "I understand the word
11:47:52 20 'extraneous' in this case to mean someone
11:47:56 21 bringing in materials and adding them to the
11:47:58 22 material." Again, within -- and that's the end
11:48:02 23 of his answer. And that is within the context of
11:48:06 24 the RL process. You set the context by your
11:48:06 25 question.

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11:48:10 2 Q. What were we talking about in our
11:48:12 3 recent discussion of "extraneous"? It was the RL
11:48:14 4 process, was it not?

11:48:18 5 A. A portion of it.

11:48:20 6 Q. Using that definition of "extraneous"
11:48:32 7 ^{I'd like} that you gave previously, to repeat my prior
11:48:56 8 question, which is, if the SEL or WEL are
11:49:00 9 circulated back into the pulper to be mixed up
11:49:04 10 with incoming raw materials, would those solubles
11:49:08 11 contained in the SEL or WEL be extraneous to the
11:49:10 12 raw materials being introduced into the pulper?

11:49:12 13 MR. NUNLEY: You changed the context
11:49:12 14 of your question.

11:49:14 15 MR. KILLORY: I have not.

11:49:14 16 MR. NUNLEY: You certainly have.

11:49:16 17 Q. Do you understand the question?

11:49:20 18 A. Just repeat it one time, please.

11:49:24 19 Q. Using the definition of "extraneous"
11:49:26 20 that you gave before --

11:49:26 21 MR. NUNLEY: That being within the
11:49:26 22 process.

11:49:36 23 Q. If the SEL or WEL are circulated back
11:49:40 24 into the pulper to be mixed up with incoming raw
11:49:44 25 material, would the solubles contained in the SEL

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MANHATTAN REPORTING CORP.

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11:49:48 2 or WEL be extraneous to the raw materials being
11:49:50 3 introduced into the pulper?

11:49:50 4 MR. NUNLEY: Same objection.

11:49:54 5 A. Absolutely not.

11:49:54 6 Q. Why not?

11:50:02 7 A. You showed me this document, Exhibit
11:50:08 8 Number 8, and pointed to a particular paragraph,
11:50:08 9 which I forget exactly which one it was.

11:50:10 10 Q. Are you referring to our discussion
11:50:12 11 of "extraneous"?

11:50:12 12 A. Of "extraneous."

11:50:14 13 Q. No. We were discussing the
11:50:18 14 interrogatory responses produced by Philip
11:50:20 15 Morris, the words Philip Morris used. That's
11:50:24 16 where our discussion of "extraneous" came from.

11:50:28 17 A. And the way it was stated was, no
11:50:32 18 extraneous nicotine is brought into the RL
11:50:36 19 process, meaning the whole facility plant, is the
11:50:38 20 way I understood it. And you asked me what my
11:50:40 21 definition of "extraneous" was.

11:50:42 22 And that was somebody going somewhere
11:50:46 23 and buying something, in this case nicotine, and
11:50:48 24 bringing it in and adding it to what was already
11:50:52 25 there. Now, in this -- using that same

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11:50:54 2 definition, you've asked me if I were to take a
11:50:58 3 material extracted from fiber already brought
11:51:02 4 into the process, and for whatever reason
11:51:08 5 happened to put some of that back in the pulper,
11:51:08 6 is that extraneous per the definition I gave you
11:51:08 7 earlier.

11:51:10 8 My answer was no. You just now asked
11:51:14 9 me why not. And the why not is that that
11:51:16 10 solubles with whatever is in it, including
11:51:20 11 nicotine, came in with that fiber. So I have a
11:51:24 12 fiber portion and a soluble portion. Whatever
11:51:28 13 comes in that front door, I'm not changing it.

11:51:32 14 Q. The soluble material that's being
11:51:36 15 recirculated back into the pulper to be mixed
11:51:38 16 with new raw materials did not come from those
11:51:40 17 new raw materials; is that correct?

11:51:48 18 A. I don't exactly understand what you
11:51:48 19 just asked me.

11:51:52 20 Q. When solubles are recirculated back
11:51:54 21 into the pulper, they are mixed with new raw
11:51:56 22 materials; correct?

11:51:56 23 A. Yes.

11:51:58 24 Q. Raw materials that have not yet gone
11:52:00 25 through the separation process of fiber and

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11:52:02 2 soluble separation; correct?

11:52:04 3 A. That's correct.

11:52:06 4 Q. When those solubles are recirculated
11:52:08 5 back into the pulper to be mixed with those new
11:52:12 6 raw materials, those solubles did not come from
11:52:14 7 those raw materials; is that correct?

11:52:14 8 A. That's correct.

11:52:18 9 Q. But you don't consider those solubles
11:52:20 10 that did not come from those raw materials to be
11:52:22 11 extraneous to those raw materials?

11:52:26 12 A. In the context of the definition we
11:52:28 13 had, absolutely not.

11:52:30 14 Q. In any sense of your understanding of
11:52:30 15 the word "extraneous"?

11:52:32 16 A. No.

11:52:38 17 Q. What is broke in the context of the
11:52:38 18 RL process?

11:52:44 19 A. Broke is base web.

11:52:50 20 Q. Is it a particular form of base web?

11:52:54 21 MR. NUNLEY: Objection as to form.

11:52:56 22 A. As far as I know there's only one
11:52:58 23 form of base web.

11:53:02 24 Q. Is the word "broke" synonymous with
11:53:06 25 "base web" in your understanding? They mean the

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11:53:06 2 exact same thing?

11:53:08 3 A. They mean the exact same thing to
11:53:08 4 me.

11:53:18 5 Q. You don't understand broke to be
11:53:24 6 pieces of base web that have been somehow chewed
11:53:26 7 up in the process of producing the RL?

11:53:28 8 A. That would be base web.

11:53:32 9 Q. So they're not the exact same thing.

11:53:38 10 MR. NUNLEY: Exact same thing as
11:53:38 11 what?

11:53:40 12 Q. Let me ask another question. Do you
1 11:53:44 13 know if broke is recirculated in the RL process?

11:53:46 14 A. Yes, it is.

11:53:50 15 Q. Where is it recirculated from? What
11:53:52 16 stage of the process?

11:53:56 17 A. From the machine formation. From the
11:53:58 18 sheet formation.

11:54:00 19 Q. In the sheet formation, how is broke
11:54:02 20 created?

11:54:14 21 A. Malfunctions in the machine.

11:54:20 22 Malfunctions in downstream pieces of equipment.

11:54:22 23 Q. And those malfunctions produce
11:54:32 24 chopped up pieces of the fiber, of the sheet, is
11:54:32 25 that correct, the base web?

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11:54:32 2 A. No.

11:54:36 3 Q. What is the broke, then? In what
11:54:38 4 form of the base web is broke?

11:54:46 5 A. What form? Broke is sheets, it's the
11:54:54 6 tobacco base web collected up to be moved out of
11:54:56 7 the way so that you can continue the process.

11:54:58 8 Q. And to where is the broke
11:55:00 9 recirculated in the RL process?

11:55:06 10 A. The broke is put into the broke
11:55:12 11 pulper. Water is added, and it's solubilized and
11:55:16 12 it's pumped back into the machine chest to be
11:55:16 13 made back into sheet.

11:55:20 14 Q. Is the broke pulper something
11:55:22 15 distinct from the pulper we've been discussing
11:55:22 16 previously?

11:55:22 17 A. Yes.

11:55:28 18 Q. Does the broke contain any solubles
11:55:30 19 in it?

11:55:32 20 A. Some.

11:55:34 21 Q. Does the base web after it's been
11:55:36 22 separated from the solubles still contain some
11:55:38 23 solubles as well?

11:55:40 24 A. A very small amount, yes.

11:55:42 25 Q. Do you know how much as a percentage,

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11:55:42 2 as a weight percentage?

11:55:42 3 A. Not today, no.

11:55:46 4 Q. Have you known in the past?

11:55:50 5 A. Again, as before, I'm sure I did, but
11:55:50 6 I don't recall what the number was.

11:56:00 7 Q. What is paraben in the context of the
11:56:02 8 RL process?

11:56:08 9 A. Paraben is a preservative.

11:56:12 10 Q. Is that also added to the pulper in
11:56:12 11 the RL process?

11:56:16 12 A. Not to my knowledge, no.

11:56:18 13 Q. Do you know if it is introduced at
11:56:22 14 any point in the RL process?

11:56:26 15 A. My understanding is paraben is added
11:56:30 16 to the liquid tobacco and put on at the size
11:56:32 17 press.

11:56:38 18 Q. Do you know what the soluble
11:56:46 19 percentage by weight of the raw materials the RL
11:56:48 20 facility receives is?

11:56:52 21 MR. NUNLEY: Objection as to form.
11:56:56 22 You mean do you know what percentage on a ^{by weight} ~~raw~~
11:56:58 23 weight basis the solubles are of the raw
11:57:00 24 materials, is that the question?

11:57:02 25 MR. KILLORY: Let me break it down.

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11:57:04 2 Q. The raw materials that are received
11:57:08 3 by the Park 500 facility for processing before
11:57:10 4 they have been processed.

11:57:12 5 A. No, I don't know.

11:57:14 6 Q. You don't know by weight what
11:57:14 7 percentage solubles represent?

11:57:16 8 A. No.

11:57:18 9 Q. Do you have any idea of a range?

11:57:22 10 A. No, I don't know the range.

11:57:26 11 Q. Is that regularly tested as part of
11:57:28 12 the RL process at the receipt of raw materials
11:57:28 13 stage?

11:57:32 14 A. The six years that I was at Park 500,
11:57:34 15 I have no recollection of ever having a hot water
11:57:36 16 solubles done on incoming raw materials.

11:57:40 17 Q. Do you know whether it's done today?

11:57:42 18 A. No, I do not.

11:57:54 19 Q. What are the sources from which Park
11:57:56 20 500 receives raw materials for processing?

11:58:02 21 A. I don't know all the sources.

11:58:08 22 Q. Are they all domestic?

11:58:08 23 A. I don't know the answer to that
11:58:08 24 either.

11:58:08 25 Q. You don't know whether raw materials

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11:58:12 2 come in from international locations?

11:58:14 3 A. That's correct. I don't know.

11:58:32 4 Q. When is a hot water solubles test
11:58:32 5 done?

11:58:38 6 MR. NUNLEY: Objection as to form.

11:58:40 7 What do you mean, when is one done?

11:58:42 8 MR. KILLORY: When in the process,

11:58:42 9 what time frame. *Was that "I have*

11:58:44 10 Q. Your prior answer to a question about
11:58:46 11 receipt of materials is, "I have no recollection
11:58:48 12 of ever having a hot water soluble done on
11:58:50 13 incoming raw materials." My question is at what
11:58:52 14 point in the process is that test done. Do you
11:58:54 15 know?

11:58:56 16 A. They do a hot water solubles on
11:58:58 17 finished sheet.

11:59:00 18 Q. Are you aware of any point in the
11:59:04 19 process where the hot water solubles test is
11:59:04 20 done?

11:59:06 21 A. No.

11:59:12 22 Q. Do you know what the target -- do you
11:59:14 23 know if there's a target range for the percentage
11:59:18 24 of hot water solubles in the finished sheet?

11:59:24 25 A. When I was at Park 500 there was a

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11:59:26 2 sheet specification that included hot water
11:59:30 3 solubles. I presume there is still one. I have
11:59:32 4 no idea what it is.

11:59:32 5 Q. Do you know what it was at the time
11:59:34 6 you were at Park 500?

11:59:38 7 A. I don't remember exactly what it was.

11:59:40 8 Q. Do you remember approximately?

11:59:42 9 A. My recollection is it was
11:59:46 10 approximately on the order of 46 to 48 percent.

11:59:50 11 Q. That was the target range?

11:59:50 12 A. As I recall.

11:59:52 13 Q. For the finished sheet?

11:59:54 14 A. For the finished sheet.

11:59:56 15 Q. What would happen if the testing of
12:00:02 16 the hot water soluble content showed that the
12:00:08 17 finished sheet had less than the target range?

12:00:10 18 MR. NUNLEY: Of what?

12:00:14 19 MR. KILLORY: Of hot water solubles.

12:00:20 20 A. If it had less than the target range
12:00:22 21 it would be out of specification.

12:00:24 22 Q. And would an out of specification
12:00:28 23 product be discarded?

12:00:32 24 A. Well, personally I don't -- part of
12:00:36 25 our job in running the factory was not to make

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12:00:38 2 out of specification material. So I can't
12:00:40 3 remember any being out of specification for hot
12:00:42 4 water solubles.

12:00:46 5 Q. In your time at Park 500 you were
12:00:48 6 never aware of an instance where the hot water
12:00:52 7 soluble content was outside of the specification
12:00:52 8 range?

12:00:54 9 A. That's correct.

12:00:58 10 Q. Have you ever heard of that happening
12:01:00 11 since the time you've been at Park 500?

12:01:02 12 A. No.

12:01:34 13 Q. How frequently during the time you
12:01:40 14 were at Park 500, how frequently was hot water
12:01:44 15 soluble testing of the finished sheet done?

12:01:48 16 A. I don't recall the frequency that we
12:01:50 17 actually did it.

12:01:52 18 Q. Do you have any idea how frequently
12:01:54 19 it was done?

12:02:02 20 A. Other than once a shift, no.

12:02:08 21 Q. So it was done once a shift at
12:02:08 22 least?

12:02:08 23 A. I believe it was done at least once a
12:02:08 24 shift.

12:02:10 25 Q. And in your recollection, never in

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12:02:14 2 that once a shift testing did the hot water
12:02:16 3 solubles test out of the specification range?

12:02:18 4 A. That I'm aware of, that's correct.

12:02:24 5 Q. In the positions you've held at Park
12:02:26 6 500, would you have been aware of testing of the
12:02:28 7 hot water solubles that showed they were out of
12:02:30 8 specification range?

12:02:34 9 A. Only for part of it.

12:02:36 10 Q. In what position?

12:02:44 11 A. As the superintendent I would have,
12:02:48 12 and there may have been occasions as the process
12:02:52 13 engineer, I might have as -- part of my job would
12:02:56 14 be to find out why and what to do about it, to
12:02:58 15 prevent it from happening again.

12:03:02 16 Q. But that never happened in your
12:03:04 17 experience; is that right?

12:03:04 18 A. Not that I remember.

12:03:10 19 Q. Are there other variables tested for
12:03:14 20 the finished sheet?

12:03:16 21 A. Yes.

12:03:16 22 Q. What are those variables?

12:03:24 23 A. Well, moisture content, additives,
12:03:32 24 humectants, preservatives.

12:03:34 25 Q. Do those variables also have

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12:03:38 2 specification ranges as well?

12:03:42 3 A. I'm sure they do.

12:03:44 4 Q. Do you recall whether in your
12:03:46 5 experience at Park 500 or anything you've learned
12:03:52 6 since that those elements ever tested outside of
12:03:54 7 the specification range?

12:03:56 8 A. No.

12:03:58 9 Q. Do you know whether the raw materials
12:04:02 10 that come into Park 500 vary in their soluble
12:04:04 11 content?

12:04:06 12 A. Yes, they do.

12:04:10 13 Q. Do you know by a ball park figure
12:04:12 14 what percentage they vary?

12:04:14 15 A. No, not really.

12:04:16 16 Q. Can they vary by as much as 100
12:04:18 17 percent?

12:04:20 18 MR. NUNLEY: One being completely
12:04:22 19 solubles and one being completely dry?

12:04:24 20 Q. Percentage of solubles can vary by
12:04:28 21 100 percent. If the solubles are 20 percent in
12:04:30 22 one batch of raw materials and 40 percent in
12:04:34 23 another batch of materials, is that -- do you
12:04:36 24 understand that to be 100 percent variation?

12:04:38 25 A. What are you referring to as

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12:04:38 2 "batch"?

12:04:44 3 Q. One set of raw materials at one point
12:04:48 4 in time and another set of raw materials at
12:04:50 5 another point in time. Can there be variation
12:04:52 6 between those raw materials? I believe you
12:04:52 7 testified yes; is that correct?

12:04:54 8 A. That's correct.

12:04:54 9 Q. And my question was could the
12:04:58 10 variation could be as much as 100 percent.

12:05:00 11 A. I don't honestly know.

12:05:02 12 Q. If there is variation in the raw
12:05:08 13 materials coming into the RL processing facility
12:05:12 14 and there's a specification range at the other
12:05:16 15 end that is constant -- is the specification
12:05:18 16 range at the other end constant?

12:05:20 17 A. I have no idea.

12:05:26 18 Q. How during your experience at Park
12:05:28 19 500 did Philip Morris ensure these raw materials
12:05:30 20 with different soluble contents arrived within
12:05:34 21 the specification range for the finished
12:05:34 22 product?

12:05:34 23 MR. NUNLEY: That presumes they were
12:05:36 24 outside of it when they started. I don't think
12:05:38 25 that's the testimony at all.

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12:05:42 2 Q. Do you know whether the soluble
12:05:46 3 content of raw materials can vary more than a few
12:05:48 4 percent?

12:05:54 5 A. I know the raw materials that Park
12:06:00 6 500 receives, the solubility is different in some
12:06:04 7 of them from -- A is different from B. Outside
12:06:06 8 of that, that's all I can tell you.

12:06:08 9 Q. How about year to year variations?
12:06:10 10 My understanding is that tobacco crop can vary
12:06:14 11 dramatically in its nicotine content, for
12:06:16 12 example, year to year. Is that true?

12:06:16 13 A. That's correct.

12:06:18 14 Q. Would the raw materials coming into
12:06:22 15 Park 500 on a year to year basis similarly vary
12:06:26 16 in their nicotine content?

12:06:28 17 MR. NUNLEY: Well, objection.
12:06:30 18 Mr. Killory, your question suggests that all the
12:06:34 19 materials that come in in a given run are taken
12:06:40 20 from the same year. That's not borne out by the
12:06:42 21 facts in the record.

12:06:44 22 Q. Did you understand my question?

12:06:44 23 A. I think you actually changed it
12:06:48 24 around, so no, I don't. Would you just read it
12:06:50 25 back? Read the last two questions back, please.

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12:06:52 2 Q. Would the raw materials coming into
12:06:58 3 Park 500 on a year to year basis similarly vary
12:07:02 4 in their nicotine content, and the "similarly"
12:07:04 5 referenced the prior question and answer where we
12:07:06 6 established that tobacco products on a year to
12:07:08 7 year basis vary in their nicotine content.

12:07:10 8 MR. NUNLEY: Mr. Killory, does your
12:07:14 9 question assume that the raw materials come --

12:07:16 10 MR. KILLORY: My question is simply
12:07:18 11 what the question has asked. It doesn't assume
12:07:20 12 anything. It's a straightforward question. If
1 07:20 13 the answer is what he has testified, the witness
12:07:24 14 can give that testimony as well. But clearly if
12:07:26 15 that's the answer he can give --

12:07:28 16 MR. NUNLEY: Your question is vague
12:07:30 17 because it doesn't explain what you mean by "on a
12:07:32 18 year to year basis." Do you mean that regardless
12:07:36 19 of the crop year when it comes into Park 500 is
12:07:38 20 what you're referring to as a year to year basis,
12:07:40 21 or are you referring to the crop year as a year
12:07:42 22 to year basis? Which is it?

12:07:44 23 MR. KILLORY: The raw materials
12:07:46 24 coming into Park 500 vary in their nicotine
1^ 07:48 25 content. Let's start with that.

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12:07:50 2 A. Can we back up one more? Because I
12:07:52 3 think you switched on me somewhere.

12:07:58 4 Q. Do you know whether the soluble
12:08:00 5 content of raw materials can vary more than a few
12:08:06 6 percent? "I know the raw materials that Park 500
12:08:06 7 receives, the solubility is different in some of
12:08:08 8 them from -- A is different from B. Outside of
12:08:08 9 that, that's all I can tell you."

12:08:12 10 "How about year to year variations?
12:08:14 11 My understanding is the tobacco crop can vary
12:08:16 12 dramatically in its nicotine content, for
1^ 08:18 13 example, year to year. Is that true?" "That's
12:08:18 14 correct."

12:08:20 15 "Would the raw materials coming into
12:08:22 16 Park 500 on a year to year basis similarly vary
12:08:26 17 in their nicotine content?" And we had a series
12:08:28 18 of objections.

12:08:30 19 A. I didn't know we left the solubles.
12:08:30 20 I thought you were trying to clarify the
12:08:32 21 solubles. Then you asked me a completely
12:08:34 22 different question than the one I expected..

12:08:36 23 Q. Do you want to correct your answer to
12:08:38 24 the -- when I asked you about variations in
12:08:42 25 tobacco crop, nicotine variations, did you

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12:08:44 2 understand that to mean solubles, not nicotine?
12:08:44 3 A. That's correct.
12:08:48 4 Q. Okay. Now that you understand it as
12:08:50 5 I asked it, referring to nicotine, is your answer
12:08:52 6 different?
12:08:54 7 A. If you would restate the question so
12:08:56 8 I know exactly what you're asking me.
12:08:58 9 Q. I'll be happy to. My understanding
12:09:00 10 is the tobacco crop can vary dramatically in its
12:09:02 11 nicotine content, for example year to year.
12:09:04 12 Is that true?
1^ 09:04 13 MR. NUNLEY: Objection to form. I
12:09:06 14 don't know what you mean by "dramatically."
12:09:14 15 A. The nicotine content can vary year to
12:09:16 16 year.
12:09:16 17 Q. Do you have any idea by how much it
12:09:18 18 can vary?
12:09:22 19 A. Upwards of 100 percent.
12:09:30 20 Q. Do you know whether there are similar
12:09:34 21 variations in the nicotine content of the raw
12:09:36 22 materials received at the RL facility?
12:09:40 23 A. No, I do not.
12:09:54 24 Q. Do you know if there are similar
12:09:56 25 variations in the soluble content of the raw

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12:09:58 2 materials received at the RL facility?

12:10:00 3 MR. NUNLEY: What do you mean by
12:10:00 4 "similar variations?"

12:10:02 5 MR. KILLORY: *Variations of up to*
12:10:06 6 Variation was 100
12:10:08 7 percent paralleling the variations in tobacco
nicotine content.

12:10:20 8 A. No, I do not.

12:10:22 9 Q. In your experience, familiarity with
12:10:24 10 Park 500, do you know whether it's ever necessary
12:10:28 11 to shed solubles so as to reach the specification
12:10:30 12 levels for the finished sheet?

1 10:36 13 A. Would you define "shed"?

12:10:36 14 Q. Do you have any understanding as to
12:10:40 15 shedding of solubles?

12:10:40 16 A. Only in connection with this
12:10:46 17 particular case, through my attorneys.

12:10:48 18 Q. I'm not asking for your discussions
12:10:50 19 with the attorneys. My only question is do you
12:10:54 20 have any understanding of shedding solubles. How
12:10:58 21 about discarding? Do you understand what I mean,
12:11:04 22 to discard solubles in the RL process?

12:11:04 23 Let me ask a different question. Did
12:11:08 24 you ever -- are you familiar with the discarding
1^ 11:10 25 of solubles in the RL process?

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T4:11:20 2 A. Am I familiar? I have heard that
12:11:22 3 solubles have been discarded.

12:11:26 4 Q. In your six years there, were you
12:11:28 5 ever aware of solubles being discarded?

12:11:32 6 A. During the six years that I was at
12:11:38 7 Park 500, the only solubles that were not
12:11:42 8 generally used in the process or lost otherwise
12:11:44 9 is during a shutdown we would collect some
12:11:48 10 solubles for the waste treatment plant.

12:11:52 11 During my six years we never had an
12:11:54 12 excess of solubles that I recall.

12:11:58 13 Q. Do you know whether the variation in
12:12:04 14 soluble content of raw materials received at Park
12:12:10 15 500 ever exceeded the variation permitted in the
12:12:12 16 specification range for the finished product?

12:12:16 17 MR. NUNLEY: Objection as to form.

12:12:24 18 A. You have asked me, if I heard you
12:12:30 19 correctly, does the variation in the solubles
12:12:34 20 received at Park 500, does the variation there
12:12:42 21 exceed the variation of the finished sheet.

12:12:44 22 Q. Let me ask it in easier terms. You
12:12:46 23 previously testified that the finished sheet
12:12:48 24 specification as best you could recall at the
12:12:52 25 time you were at Park 500 was 46 to 48 percent.

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12:12:54 2 Is that right?

12:12:54 3 A. That's correct.

12:12:56 4 Q. For the content by weight, soluble
12:13:00 5 content by weight of the finished product; is
6 that correct?

12:13:00 7 A. That's correct.

12:13:04 8 Q. That variation, 46 to 48 percent, is
12:13:08 9 approximately a 4 percent -- a little over 4
12:13:12 10 percent variation, is that correct, from 46 to 48
12:13:16 11 percent? 2 percentage points as a percentage of
12:13:18 12 48 is in the neighborhood of 4 percent
12:13:18 13 variation?

12:13:20 14 A. Yes, it is.

12:13:22 15 Q. Do you know whether the soluble
12:13:26 16 content of the raw materials received at Park 500
12:13:28 17 during the time you were there ever varied by
12:13:30 18 more than 4 percent?

12:13:32 19 MR. NUNLEY: Objection. Mr. Killory,
12:13:34 20 your question I believe assumes that the solubles
12:13:38 21 in the finished product are all tobacco
12:13:40 22 solubles. I think that's the only way your
12:13:42 23 question can really make any sense. I think you
12:13:44 24 need to establish whether that's the case or if
12:13:46 25 there are other solubles in the finished product.

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12:13:48 2 MR. KILLORY: Right now I'll stand
12:13:50 3 with the question I have.

12:13:50 4 MR. NUNLEY: Then I'll object because
12:13:52 5 it's misleading.

12:13:52 6 MR. KILLORY: Fine.

12:13:54 7 Q. You can answer the question. Do you
12:13:56 8 know whether the soluble content of the incoming
12:13:58 9 raw materials at Park 500 at the time you were
12:14:00 10 there ever varied by more than 4 percent?

12:14:02 11 A. No, I don't know that ^{it} they did.

12:14:16 12 Q. Mr. Merrill, I'm handing you a
12:14:22 13 document I have not marked as an exhibit. It's a
12:14:22 14 document that was Exhibit Number 32 to the
12:14:24 15 Burnley deposition.

12:14:24 16 MR. NUNLEY: Do you have another copy
12:14:26 17 for counsel?

12:14:26 18 MR. KILLORY: I'm not going to ask
12:14:30 19 any questions about the pages. I just want to
12:14:32 20 have the witness see the cover page.

12:14:40 21 Q. My question is, looking at the cover
12:14:44 22 of this document, "RL overview," do you recall
12:14:46 23 ever having seen it before?

12:14:48 24 MR. NUNLEY: It's called "RL process
12:14:48 25 overview."

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MANHATTAN REPORTING CORP.

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12:14:50 2 MR. KILLORY: "RL process overview,"
12:14:52 3 excuse me.

12:14:52 4 A. No.

12:15:00 5 Q. In your time at Park 500, did you
12:15:06 6 ever prepare any document that gave an overview
12:15:06 7 of the RL process?

12:15:08 8 A. No.

12:15:12 9 Q. So to the best of your recollection,
12:15:14 10 you have never seen this document before?

12:15:14 11 A. I have never seen this document
12:15:20 12 before. Based on the cover page.

12:15:22 13 Q. Would it help you to -- I don't want
12:15:24 14 to have you read the entire document. Would it
12:15:26 15 help you to look at, just skim through to
12:15:28 16 identify whether the document is familiar to
12:15:30 17 you? Would you please do that.

12:15:32 18 (Witness complies.)

12:15:38 19 A. No, never.

12:15:40 20 Q. Based on your skimming through of the
12:15:42 21 document, you don't recall having seen that
12:15:44 22 description of the RL process?

12:15:48 23 A. No, I have never seen what's
12:15:50 24 contained in here as it is.

12:15:56 25 THE VIDEO OPERATOR: We're going off

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
12:15:58 2 the record. This is the end of videotape number
12:16:06 3 4. The time on the screen is 12:16:04.
12:16:26 4 (A recess was taken.)
12:28:26 5 THE VIDEO OPERATOR: This is
12:28:30 6 videotape number 5, the continuation of the
12:28:34 7 deposition of Mr. Merrill. Today is June 30th,
12:28:40 8 1995. The time on the screen is 12:28:38.
12:28:40 9 You're on the record.
12:28:42 10 Q. Mr. Merrill, in addition to the
12:28:48 11 solubles contained in the incoming raw materials,
12:28:50 12 are there additional solubles added in the course
12:28:52 13 of the RL production process?
12:29:06 14 A. Yes, if I understand the question
12:29:06 15 correctly.
12:29:08 16 Q. What are those solubles?
12:29:14 17 A. Some of the solubles are things such
12:29:24 18 as humectants, sugar, flavors, preservatives.
12:29:32 19 Q. Are you familiar with any of the
12:29:36 20 flavors that are added to the RL product?
12:29:46 21 A. Perhaps some. I'm not sure whether
12:29:54 22 they're flavors or whether they're for things
12:29:58 23 like preservatives per se. I don't know.
12:30:00 24 Q. Can you identify any items that you
12:30:00 25 understand to be flavors?

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MANHATTAN REPORTING CORP.

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12:30:10 2 A. Sugar.

12:30:12 3 Q. Any others?

12:30:18 4 A. I'm not -- well, during my time at

12:30:22 5 Park 500 it used to be ground cocoa shells. I

12:30:24 6 don't know what they're using today.

12:30:26 7 Q. Do you know where the ground cocoa

12:30:28 8 shells that were used came from?

12:30:34 9 A. A supplier.

12:30:38 10 Q. Do you know where that supplier was

12:30:38 11 located?

12:30:38 12 A. No.

12:30:40 13 Q. International or domestic, do you

12:30:40 14 know?

12:30:40 15 A. No, I don't.

12:30:42 16 Q. Have you heard of a flavor called

12:30:44 17 Cochise?

12:30:48 18 A. I remember the term Cochise.

12:30:50 19 Q. Do you know what that term means? In

12:30:52 20 the context of the RL process.

12:31:06 21 A. I don't remember specifically which

12:31:12 22 piece it addresses. I think it was cocoa

12:31:14 23 shells.

12:31:16 24 Q. Do you know whether cocoa shells are

12:31:20 25 still used today in the RL process?

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MANHATTAN REPORTING CORP

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12:31:22 2 A. I have no idea.

12:31:24 3 Q. How about Juneau? Is that a flavor?

12:31:32 4 A. I remember the term Jono, J-o-n-o.

12:31:34 5 Q. Jono, excuse me.

12:31:36 6 A. But that's all I remember.

12:31:46 7 Q. Do you know what, as a percentage by

12:31:56 8 weight, what the percentage content of the

12:32:00 9 overall finished product solubles are represented

12:32:02 10 by the flavors that are added?

12:32:10 11 A. Let me answer it this way. I think I

12:32:12 12 know what you're asking me but I'm not sure. If

1^ 32:16 13 I have a hundred pounds of finished sheet and the

12:32:20 14 specification is 48 percent hot water solubles

12:32:24 15 for the finished sheet, that means 48 pounds are

12:32:26 16 solubles. 12 of those pounds would be those

12:32:32 17 materials, and 36 pounds would be the soluble

12:32:34 18 tobacco portion.

12:32:38 19 Q. And when you say "those materials" in

12:32:40 20 that last response, which materials were you

12:32:42 21 referring to?

12:32:46 22 A. The humectants, sugar.

12:32:48 23 Q. All of the additives including the

12:32:50 24 flavors?

1^ 32:52 25 A. Including -- wait a minute.

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MANHATTAN REPORTING CORP.

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12:32:56 2 Q. Is a humectant a flavor?

12:32:56 3 A. Including the flavors, right.

12:32:58 4 Q. I wanted to clearly distinguish, was
12:33:00 5 it additives or flavors -- were the 12 pounds
12:33:02 6 that you gave, that referred to all of the
12:33:04 7 soluble additives?

12:33:04 8 A. That's correct.

12:33:14 9 Q. And what's the basis for your
12:33:18 10 knowledge of that 12 pounds of the 48 pounds?

12:33:26 11 A. That's what the materials were being
12:33:28 12 added when I was at Park 500.

12:33:30 13 Q. Was that part of a specification
12:33:32 14 sheet?

12:33:32 15 A. Yes, it was.

12:33:46 16 MR. NUNLEY: Witch number 2.

12:34:00 17 Q. Let me hand you a document -- well,
12:34:00 18 let's have it marked.

19 (Merrill Exhibit 12 for
20 identification, memorandum from J. Pickelhaupt to
21 distribution, subject, line 1 blending chemicals,
22 dated June 18, 1983.)

12:34:32 23 MR. NUNLEY: Mr. Court Reporter, my
12:34:38 24 comment was "witch," w-i-t-c-h, "number two."

12:34:44 25 Q. Mr. Merrill, the court reporter has

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
12:34:46 2 handed you a document that has been marked as
12:34:52 3 Merrill Exhibit 12. It's a two-page document
12:34:58 4 bearing the Bates stamp PA 404743 through 44.
12:35:04 5 The production numbers are 2024797858 through
12:35:10 6 *Could you take a look* / *Take* a look at Exhibit 12, please.
12:35:12 7 (Witness complies.)
12:36:22 8 Q. Have you had a chance to look at
12:36:24 9 Merrill Exhibit Number 12, Mr. Merrill?
12:36:24 10 A. Yes, I have.
12:36:30 11 Q. It's a memorandum from J. Pickelhaupt
12:36:32 12 to distribution, subject, line 1 blending
12:36:38 13 chemicals, dated June 18, 1983) The stationery,
12:36:40 14 is Park 500 environmental services interoffice *On which its* correspondence. Is Park 500 environmental
12:36:44 15 services part of your office?
12:36:48 16 A. No, they are not.
12:36:52 18 Q. Is there any relationship, reporting
12:36:54 19 relationship between Park 500 environmental
12:36:56 20 services and your environmental compliance
12:36:56 21 office?
12:37:00 22 A. There is a dotted line relationship
12:37:06 23 which basically relates to *Training and* *things like*
12:37:08 24 information flows such as permitting and things
12:37:08 25 like that.

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MANHATTAN REPORTING CORP.

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12:37:12 2 Q. On the dotted line, does the Park 500
12:37:14 3 environmental services report to your office?

12:37:18 4 A. Repeat that. They're not part of my
12:37:20 5 office and I see very little correspondence from
12:37:20 6 them.

12:37:24 7 Q. But you said there's a dotted line
12:37:26 8 relationship. My question was only to the extent
12:37:28 9 on that dotted line relationship whether the
12:37:32 10 reporting function, to the extent there is one,
12:37:36 11 goes from the Park 500 environmental services to
12:37:40 12 your office or from your office to Park 500
12:37:42 13 environmental services.

12:37:44 14 MR. NUNLEY: Objection as to form.

12:37:44 15 A. I don't understand your question.
12:37:46 16 You're asking me two questions. *I don't*

12:37:48 17 Q. Could you explain again what the
12:37:52 18 dotted line relationship is between the Park 500
12:37:54 19 environmental services and your office?

12:37:58 20 A. If we're preparing a permit we would
12:38:00 21 get the appropriate information from Park 500
12:38:04 22 environmental services to fill in the blanks for
12:38:06 23 the application for that permit.

12:38:08 24 Q. Other than that information function,
12:38:10 25 was there a training function as well?

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MANHATTAN REPORTING CORP.

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12:38:12 2 A. And training.

12:38:14 3 Q. Could you describe that?

12:38:24 4 A. Hazardous waste, DOT, following the

12:38:26 5 DOT rules and regs, making sure the people are

12:38:28 6 trained according to the regulations

12:38:30 7 Q. Would that be your office training

12:38:32 8 people from Park 500 environmental services?

12:38:32 9 A. That's correct.

12:38:38 10 Q. Do you know who Mr. Pickelhaupt is?

12:38:40 11 A. John Pickelhaupt, yes, I do.

12:38:44 12 Q. What's his position? What was his

1 38:48 13 position in June of '93, if you know?

12:38:50 14 A. John's position was, I believe,

12:38:52 15 environmental engineer.

12:38:54 16 Q. Do you know if he's still with Park

12:38:56 17 500 environmental services?

12:38:58 18 A. No, he is not.

12:38:58 19 Q. Do you know what his current position

12:38:58 20 is?

12:39:06 21 A. Superintendent in the maintenance

12:39:08 22 department.

12:39:14 23 Q. The chemicals listed on the two -- on

12:39:16 24 the first page, and there's a carryover to the

1^ 39:20 25 *second* *next* page of Merrill Exhibit Number 12, are those

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
12:39:24 2 chemicals included within the additives that
12:39:26 3 we've been previously discussing?

12:39:28 4 MR. NUNLEY: Objection.

12:39:34 5 MR. KILLORY: Let me just clarify.

12:39:34 6 Q. Those additives are the additives
12:39:36 7 added to the RL product in the RL processing?

12:39:38 8 MR. NUNLEY: Objection. Compound.

12:39:48 9 A. Not that I'm aware of, no.

12:39:48 10 Q. Do you know what, starting with the
12:39:54 11 top of that list, what "dispersant 100 PG" refers
12:39:54 12 to?

12:39:56 13 A. Not specifically, no.

12:39:56 14 Q. Do you know generally what it is?

12:39:58 15 A. No.

12:40:00 16 Q. You don't know what its role in the
12:40:02 17 RL process is?

12:40:04 18 A. I don't know that it has a role in
12:40:06 19 the RL process.

12:40:12 20 Q. Do you know why it would be stored in
12:40:14 21 line 1 blending area?

12:40:16 22 A. Yes.

12:40:16 23 Q. Why?

12:40:20 24 A. Blending in line 1 is a rather large
12:40:24 25 room that has large open space available to store

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
12:40:26 2 materials.

12:40:30 3 Q. How about "sodium hypochlorite
12:40:36 4 (bleach)"? Do you know what that chemical is?

12:40:38 5 A. Yes, I do.

12:40:40 6 Q. Does it have a role in the production
12:40:40 7 of the RL product?

12:40:44 8 A. The bleach is used to disinfect the
12:40:46 9 lines that the material is pumped through.

12:40:54 10 Q. Do you know what dispersant 100 PG is
12:40:56 11 used for?

12:40:58 12 A. I don't know what it is.

12:41:02 13 Q. How about Ram Tex? What is Ram Tex?

12:41:04 14 A. No. Do not know what it is.

12:41:06 15 Q. And have no knowledge of whether it's
12:41:08 16 used in the process?

12:41:10 17 A. No, I do not.

12:41:14 18 Q. How about BL 1302? Do you know what
12:41:14 19 that is?

12:41:16 20 A. No.

12:41:22 21 Q. How about sodium hydroxide, caustic?

12:41:28 22 A. They -- the sodium hydroxide I'm
12:41:32 23 aware of that's used at Park 500 is to adjust pH
12:41:32 24 of the water.

12:41:38 25 Q. So sodium hydroxide is added to the

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret

12:41:40 2 water to adjust the pH level of the water?

12:41:42 3 A. That's the only awareness I have of

12:41:44 4 sodium hydroxide being used at Park 500.

12:41:48 5 Q. What water is it added to at Park

12:41:48 6 500?

12:41:50 7 A. Park 500 gets its water from the

12:41:52 8 James River. So occasionally the pH has to be

12:41:54 9 adjusted.

12:41:56 10 Q. And this is the water that's used in

12:41:58 11 the production process of the RL; is that

12 correct?

1 41:58 13 A. That's correct.

12:42:02 14 Q. Do you recognize what CL 1436 is?

12:42:10 15 A. I don't know specifically on the CLs

12:42:12 16 what any individual one is, but it's my

12:42:16 17 understanding that those items at least

12:42:18 18 designated with a CL, those are water treatment

12:42:20 19 chemicals. They're biocides.

12:42:22 20 Q. I'm sorry. The last --

12:42:22 21 A. Biocides.

12:42:26 22 Q. What's that? Biocide, is that

12:42:32 23 b-i-o-c-i-d-e?

12:42:34 24 A. I'm not sure how you spell it. But

1^ 42:34 25 when you have any -- I mean, there are biocides

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
12:42:36 2 being used in this building. When you have water
12:42:42 3 that's used to go ~~five~~ ^{through} chillers to provide cold
12:42:44 4 air, you have to get rid of the heat in the
12:42:46 5 cooling tower.

12:42:48 6 So you're circulating water that's
12:42:50 7 exposed to air, and there's things in the air,
12:42:52 8 there's yeasts, there's other types of bacteria.
12:42:54 9 So in order to prevent them from growing in your
12:43:00 10 system you apply biocides and things such as
12:43:00 11 that.

12:43:02 12 And you also have to have sufficient
12:43:06 13 ones so that you rotate them, because much as
12:43:08 14 we've evolved, depending on what you believe,
12:43:12 15 from different things, these little bacteria
12:43:16 16 reproduce very frequently, so they can become
12:43:18 17 very used to a given chemical.

12:43:20 18 So you have to keep switching the
12:43:22 19 chemicals in and out to keep them confused. So
12:43:26 20 these items marked with a CL are biocides, to the
12:43:26 21 best of my knowledge.

12:43:30 22 Q. Do you know what CL stands for? Does
12:43:32 23 it have a particular meaning?

12:43:34 24 A. Well, the biocides come from
12:43:36 25 Chemtreat, but they've always marked their drums

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1 Merrill - Highly Confidential - Trade Secret

12:43:40 2 CL. I don't know what CL stands for.

12:43:40 3 Q. So the different numbers simply
12:43:44 4 refer, to the best of your understanding, to
12:43:46 5 different variations of biocide formulations?

12:43:46 6 A. That's correct.

12:43:50 7 Q. And these biocides are added to the
12:43:52 8 water in the RL process, is that right, to
12:43:54 9 achieve the purpose you described?

12:43:54 10 A. No, they're not.

12:43:56 11 Q. Okay. How are they used?

12:44:00 12 A. These biocides are adding to -- are
12:44:04 13 added to the water in the utilities systems. So
12:44:08 14 that's -- they're in the air washers, they're in
12:44:12 15 the water that's used to cool the building. None
12:44:14 16 of those are used in the water that touches the
12:44:16 17 tobacco. They're used in the building system
12:44:16 18 water.

12:44:20 19 Q. And am I correct that the caustic --
12:44:24 20 the sodium hydroxide is used in the water that
12:44:26 21 does touch the tobacco in the process; is that
12:44:26 22 correct?

12:44:28 23 A. To the best of my knowledge.

12:44:32 24 Q. Do you know what Ucartherm is?

12:44:32 25 A. No, I don't.

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MANHATTAN REPORTING CORP.

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12:44:34 2 Q. And you don't have any knowledge as
12:44:36 3 to how it's used in the RL facility?

12:44:38 4 A. No, I don't.

12:44:42 5 Q. How is hydrogen peroxide used, do you
12:44:42 6 know?

12:44:48 7 A. I'm not sure how they're using
12:44:50 8 hydrogen peroxide.

12:45:10 9 Q. In your knowledge of the RL process,
12:45:12 10 was the color of the finished sheet, the RL
12:45:16 11 color, one of the specifications?

12:45:18 12 A. Not that I recall, no.

12:45:20 13 Q. Do you ever recall any examination of
12:45:24 14 the finished sheet for its color?

12:45:26 15 A. No.

12:45:30 16 Q. Any other factors for which the
12:45:34 17 finished sheet was examined besides the items
12:45:34 18 we've discussed already?

12:45:40 19 MR. NUNLEY: Objection as to form. I
12:45:42 20 don't know that those items are readily apparent
12:45:44 21 from the record.

12:45:58 22 A. Not that I recall, no.

12:46:02 23 Q. Have you ever used or heard the term
12:46:04 24 in the context of the RL production process, "old
12:46:04 25 liquor"?

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MANHATTAN REPORTING CORP.

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12:46:08 2 A. No.

12:46:14 3 Q. What does "liquor" refer to in
12:46:14 4 connection with the RL process?

12:46:22 5 A. The soluble portion is often referred
12:46:22 6 to as liquor.

12:46:28 7 Q. Do you know what the shelf life of
12:46:32 8 liquor is in the RL process?

12:46:34 9 A. Under what conditions?

12:46:36 10 Q. Does it vary depending on the
12:46:36 11 conditions?

12:46:38 12 A. Yes.

12:46:40 13 Q. What are the conditions that cause it
12:46:40 14 to vary?

12:46:44 15 A. Well, since it's an organic material
12:46:48 16 just like milk, butter, cheese, the colder you
12:46:50 17 keep it the longer you can keep it.

12:46:52 18 Q. In the conditions maintained
12:46:54 19 typically at the RL facility, what's the shelf
12:46:56 20 life?

12:47:00 21 A. I'm not sure exactly what it would
12:47:00 22 be.

12:47:02 23 Q. Do you know approximately?

12:47:10 24 A. Again, depending on the time of year,
12:47:12 25 ten days to maybe a month. I don't know.

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MANHATTAN REPORTING CORP.

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12:47:18 2 Q. How is it stored?

12:47:26 3 A. Well, when I was at Park 500 from '76

12:47:28 4 to '82, I mean, it wasn't truly stored. It was

12:47:34 5 all in process. So you had a tank where you

12:47:38 6 collected the evaporator feed. You fed it to the

12:47:40 7 evaporator. You had the evaporated product

12:47:46 8 called CEL and then DNCEL. And then you made

12:47:48 9 size and you put it on the sheet.

12:47:52 10 So, I mean, you had the evaporator

12:47:54 11 feed tank, the CEL tank, the DNCEL tank. There

12:47:58 12 was no storage. It was all in process.

12:47:58 13 Q. What was the capacity at the time you

12:48:02 14 were at the Park 500 facility, the capacity of

12:48:04 15 the CEL tank?

12:48:08 16 A. I don't recall the exact capacity.

12:48:10 17 Q. How about the DNCEL tank?

12:48:12 18 A. The CEL and DNCEL tanks were the same

12:48:14 19 size. I don't recall how much they held.

12:48:18 20 Q. Do you know how many tanks there were

12:48:20 21 for each line?

12:48:22 22 MR. NUNLEY: Objection as to form.

12:48:24 23 Compound question.

12:48:32 24 A. As I recall, they were two CEL tanks

12:48:42 25 and two DNCEL tanks for each line, 1 and 2.

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MANHATTAN REPORTING CORP.

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12:48:54 2 Q. In the context of the RL facility, do
12:48:58 3 you know what "the lab" refers to?

12:49:02 4 A. Not in those terms, no.

12:49:04 5 Q. What is it about the term that is
12:49:06 6 confusing in the way I put it?

12:49:08 7 A. There were several.

12:49:10 8 Q. There were several labs at Park 500?

12:49:12 9 A. Mm-hmm. That's correct.

12:49:12 10 Q. What were the labs?

12:49:16 11 A. You had the wastewater treatment lab,
12:49:18 12 you had the boiler house lab, and you had the
12:49:20 13 quality lab.

12:49:24 14 Q. Do you know whether those three labs
12:49:26 15 still exist today at Park 500?

12:49:28 16 A. No, I do not.

12:49:34 17 Q. What functions were performed by the
12:49:36 18 quality lab?

12:49:40 19 A. I don't know what all the functions
12:49:40 20 were.

12:49:42 21 Q. What were the functions, to the best
12:49:42 22 of your knowledge?

12:49:46 23 A. They did the finished sheet hot water
12:49:46 24 solubles.

12:49:48 25 Q. They did the testing of the finished

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MANHATTAN REPORTING CORP.

1 Merrill - Highly Confidential - Trade Secret
12:49:52 2 sheet hot water solubles to ensure they were
12:49:52 3 within the specifications?

12:49:54 4 A. Specifications. And they did the
12:49:56 5 moisture.

12:49:58 6 Q. When you say they did the moisture,
12:50:02 7 testing for moisture content of the finished
12:50:02 8 sheet?

12:50:04 9 A. In the finished sheet, that's
12:50:04 10 correct.

12:50:06 11 Q. Anything else?

12:50:08 12 A. And they did a test that I remember
1^ 50:12 13 called consistency. That's a paper term for how
12:50:14 14 much fiber is in the water.

12:50:18 15 Q. Where is that test taken?

12:50:22 16 MR. NUNLEY: What exactly do you
12:50:24 17 mean, Mr. Killory? Where is it performed or --

12:50:26 18 MR. KILLORY: Where in the process.
12:50:26 19 At what stage in the process.

12:50:28 20 MR. NUNLEY: Is the sample taken to
12:50:30 21 do the test?

12:50:30 22 MR. KILLORY: That's correct.

12:50:36 23 A. I don't -- it was -- the sample was
12:50:40 24 taken in the machine room. I can't tell you
1^ 50:44 25 specifically where they took the samples. I

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42:50:44 2 don't really remember.

12:50:48 3 Q. And why was that test taken? What
12:50:50 4 was its purpose?

12:50:54 5 A. The consistency is a factor in
12:50:58 6 forming a good ^{type} base web.

12:51:04 7 Q. How about the wastewater treatment
12:51:06 8 lab? Does that still exist?

12:51:08 9 A. I believe it does, yes.

12:51:08 10 Q. Is there testing that's done by the
12:51:10 11 wastewater treatment lab?

12:51:12 12 A. Yes, there is.

12:51:14 13 Q. Do you know what they test for?

12:51:16 14 A. Not specifically, no.

12:51:16 15 Q. Do you know generally what they test
12:51:18 16 for?

12:51:20 17 A. They test -- they test the parameters
12:51:24 18 required by the wastewater discharge permit.

12:51:26 19 Q. Do those parameters include nicotine
12:51:26 20 content?

12:51:30 21 A. Not that I'm aware of, no.

12:51:38 22 Q. Are you familiar with diammonium
12:51:44 23 phosphate, sometimes referred to as DAP?

12:51:44 24 A. Yes.

12:51:48 25 Q. What is diammonium phosphate?

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12:52:00 2 A. Diammonium phosphate, I don't --

12:52:00 3 Q. Is it a chemical?

12:52:02 4 A. Yes, it's a chemical.

12:52:02 5 Q. What is it used for?

12:52:04 6 A. It's one of the additives in the size

12:52:04 7 at Park 500.

12:52:06 8 Q. Why is it added to the size?

12:52:08 9 A. I have no idea.

12:52:10 10 Q. When you refer to size, we haven't

12:52:12 11 referred to that term in the record so far. What

12:52:14 12 do you mean by the size?

12:52:18 13 A. Size is the soluble tobacco materials

12:52:24 14 and the components we spoke of before, glycerine,

12:52:28 15 PG, sugar, et cetera, that are mixed together and

12:52:34 16 applied to the base web at the size press. The

12:52:36 17 area where those materials are put back on is

12:52:38 18 called the size press. The material is called

12:52:42 19 size. S-i-z-e.

12:52:44 20 Q. The size is the final stage of the

12:52:46 21 solubles before they're added back to the base

12:52:48 22 web; is that correct?

12:52:48 23 A. That's correct.

12:52:52 24 Q. And is it at that point that the

12:52:56 25 diammonium phosphate is added to the size?

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12:52:56 2 MR. NUNLEY: At which point?

12:52:58 3 MR. KILLORY: Right before it's added
12:53:00 4 to the base web.

12:53:02 5 A. That's what I recall, yes.

12:53:08 6 Q. You've never had any -- have you ever
12:53:08 7 had any conversation with anyone as to why
12:53:12 8 diammonium phosphate is added to the finished
12:53:14 9 product?

12:53:14 10 A. No, I have not.

12:53:18 11 Q. Do you know whether diammonium
12:53:22 12 phosphate enhances nicotine delivery in any way?

12:53:24 13 A. I have no idea.

12:53:32 14 Q. Is diammonium phosphate similar to
12:53:36 15 ammonia, as I know ammonia in the common
12:53:38 16 household sense of the word, ammonia?

12:53:40 17 MR. NUNLEY: Objection to form. How
12:53:42 18 do you mean, similar to ammonia?

12:53:44 19 Q. Does it have similar chemical
12:53:44 20 properties, do you know?

12:53:46 21 A. No, it does not.

12:53:46 22 Q. How does it differ?

12:53:50 23 A. Diammonium phosphate is a crystal.
12:53:54 24 It's composed of ammonia and phosphorous, and
12:54:00 25 household ammonia is anhydrous ammonia, a small

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12:54:02 2 quantity dissolved in water.

12:54:04 3 Q. The ammonium phosphate that's in
12:54:06 4 crystal form, is that dissolved in the size
12:54:10 5 before it's added back to the base web?

12:54:14 6 A. I don't know what the solubility of
12:54:16 7 that material is in the size.

12:54:18 8 Q. Is it possible that the diammonium
12:54:20 9 phosphate is added back in crystal form to the
12:54:22 10 base web?

12:54:26 11 A. I don't know what form it's added
12:54:26 12 back in.

12:54:28 13 Q. In your experience, your six years at
12:54:30 14 Park 500, you didn't come to have any knowledge
12:54:32 15 as to what form the diammonium phosphate was
12:54:34 16 added to the base web?

12:54:40 17 A. I might have known 15 years ago. I
12:54:40 18 don't remember what we did here today.

12:54:40 19 Q. Do you know if there's any taste
12:54:42 20 associated with diammonium phosphate?

12:54:44 21 A. No, I don't know.

12:54:50 22 Q. Do you know what urea is in the
12:54:52 23 context of the RL production process?

12:54:54 24 MR. NUNLEY: You mean, again, as a
12:54:54 25 chemical?

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12:54:56 2 MR. KILLORY: That's right.

12:54:58 3 A. Yes, urea is a chemical.

12:55:00 4 Q. Is urea added? How is urea used in
12:55:02 5 the RL process, if at all?

12:55:10 6 A. In the '70s we used urea in the
12:55:10 7 size.

12:55:14 8 Q. Is urea a chemical that's part of the
12:55:16 9 ammonia family?

12:55:20 10 A. I don't know.

12:55:24 11 Q. When you were at Park 500, was urea
12:55:24 12 still being used?

12:55:26 13 A. Yes, it was.

12:55:28 14 Q. Was it discontinued, to your
12:55:28 15 knowledge?

12:55:32 16 A. I have no idea.

12:55:36 17 Q. Do you know whether there's any
12:55:38 18 flavor associated with urea?

12:55:42 19 A. No, I do not.

12:55:44 20 Q. Do you know whether urea in any way
12:55:46 21 enhances nicotine delivery?

12:55:48 22 A. No, I do not.

12:55:52 23 Q. Do you know whether Philip Morris
12:55:56 24 ever switched from using dry flavors to liquid
12:56:00 25 flavors at the Park 500 facility?

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12:56:04 2 A. Yes, they did.

12:56:04 3 Q. And when did they do that?

12:56:10 4 A. I don't recall the date when they did

12:56:10 5 that.

12:56:10 6 Q. Do you know approximately?

12:56:12 7 A. It was near the very end of my tenure

12:56:14 8 at Park 500.

12:56:16 9 Q. So somewhere around 1982?

12:56:16 10 A. Yes.

12:56:20 11 Q. Why was there a switch from dry

12:56:22 12 flavors to liquid flavors?

12:56:22 13 A. I have no idea.

12:56:26 14 Q. You never had any conversations on

12:56:26 15 that subject?

12:56:28 16 A. No, I did not.

12:56:30 17 Q. Did you ever hear a reference to

12:56:32 18 Takasago liquid flavors?

12:56:34 19 A. No, I did not.

12:56:36 20 Q. You're smiling. Why? Is there a

12:56:38 21 reason? *Takasago*

12:56:38 22 A. I never heard that term before.

12:56:44 23 Q. In your experience at Park 500, were

12:56:46 24 there any problems with dry flavors?

12:56:48 25 A. None that I recall, no.

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12:56:52 2 Q. So you know of no advantages of
12:56:54 3 liquid flavors over dry flavors?

12:56:56 4 A. No.

12:57:08 5 MR. KILLORY: Let's break for lunch.

12:57:08 6 THE VIDEO OPERATOR: We're going off
12:57:14 7 the record. The time on the screen is 12:57:13.

8 (Luncheon recess: 12:57 p.m.)

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